

NIHAA Update

Anderson To Speak At NIHAA Meeting

The annual meeting of the NIH Alumni Association (NIHAA) will be held on Saturday, Mar. 21, 1992, from 2 until 4:30 p.m. at the Mary Woodard Lasker Center, Bldg. 60. Dr. W. French Anderson, chief of NHLBI's Molecular Hematology Branch, will speak on "Human Gene Therapy."

Human gene therapy is a novel method of treating genetic disease. It involves removing defective cells from the body, correcting the defect by inserting a normal gene and then reinserting the corrected cells into the body. The corrected cells are then able to produce the previously missing gene product.

Anderson and his colleagues have used gene therapy to treat children with adenosine deaminase deficiency (ADA). ADA-deficient patients lack the gene responsible for the production of

(See Anderson p. 2)



Dr. W. French Anderson, chief of NHLBI's Molecular Hematology Branch, will speak at the NIHAA annual meeting on Mar. 21, 1992.



Sen. Barbara Mikulski beams with pride after receiving a new NIH lab coat from Dr. Bernadine Healy at town meeting II.

A 'Lofty Gripe Session'

Improvements for NIH Future Are Focus of Town Meeting II

By Rich McManus

So that future NIH may be better, present NIH endured a cold, hard look Nov. 25, 1991, when NIH director Dr. Bernadine Healy convened her second "town meeting" in two months.

Participating in the proceedings were Sen. Barbara Mikulski (D-Md.) and Dr. James O. Mason, HHS assistant secretary for health, who heard a panel of seven NIH authorities give a frank assessment of areas where the institutes could stand improvement.

Critiques focused on recruitment of junior scientists, retention of senior scientists, infrastructure problems, red tape in procurement and personnel, and ethics laws that were called "unfair and punitive."

(See Town Meeting p. 20)

NIH Relocation to Bethesda Is Recalled

Nostalgia was the theme of a celebration held on Nov. 23, 1991, at the Mary Woodard Lasker Center to commemorate the move of the NIH campus to Bethesda between 1938 and 1941. "Celebrating Arrival in Bethesda" was cosponsored by the NIH Alumni Association (NIHAA) and the NIH Historical Office/DeWitt Stetten, Jr. Museum of Medical Research.

The reception and seminar were attended by more than 120 members, guests, and current NIH personnel. In conjunction with the meeting, the Stetten Museum sponsored an exhibit and brochure entitled "Seventy Acres of Science: Establishing the NIH Campus at Bethesda, 1930-1941," which may be seen in the NIH Clinical Center, Bldg. 10.

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ADA, an enzyme which breaks down toxic substances in the body. Without this essential gene and the resulting enzyme, toxic substances attack the immune cells in the bloodstream and the body's immune system eventually fails, leaving the patient at risk of infection. ADA patients have been receiving weekly injections of PEG-ADA, a drug that temporarily replaces the missing enzymes. In addition, the NIH patients have received their own gene-corrected cells and they are doing very well so far.

Human gene therapy has potential for treating many other diseases including cancer, cardiovascular disease, hemophilia and AIDS. The technology is progressing rapidly. The applications for this therapy may potentially have a tremendous impact on disease treatment approaches and outcomes in the next century.

There will be a short business meeting to let members and guests know what is happening with the NIHAA. For more information about the meeting call the office at (301) 530-0567.

FEEDBACK

With this issue of the NIHAA Update, we would like to start a section on the views of our members on matters relating to the biological sciences and the NIH in particular. Please let us know how you feel on any issue you consider significant. To start the ball rolling, here's one scientist's view on an old problem with a new twist:

At the most recent town meeting featured elsewhere in this issue—the

NIH was represented to Senator Mikulski by three clinicians, the head of rehabilitation, two administrators and—oh, yes, a laboratory scientist. The point was made repeatedly that NIH's function is to bring advances made at the bench to the bedside; but almost no mention was made of how these new findings magically appear.

This is the pitch that NIH has always made to Congress. And maybe it's worked more effectively than the truth ever could. But maybe it's time we gave Congress a little more credit for intelligence and explained in simple terms that advances at the bench don't just happen—that NIH's first job is to make those fundamental discoveries so that NIH clinicians and industry can develop practical applications.

Would it really be so difficult, for example, to explain to the Congress that the Nobel prize for the polio vaccine went to neither Salk nor Sabin, but to Enders, Wellers and Robins?—that in a very real sense the Nobel Prize for HIV has already been awarded—not to Montagnier or Gallo, but to those whose fundamental work made the discovery possible, Baltimore and Temin?

Congress and the American people are not stupid. Told repeatedly that biological science is on the "verge of a breakthrough in . . ."—you fill in the gap—they have long since concluded that NIH's word is no more reliable than the Defense Department when it evaluates the B2 bomber.

The love-hate relationship between the public and the biological sciences has slowly but appreciably shifted from the *l* to the *h* side of that hyphenated affair. Perhaps a growing contempt by Congress for scientific spokesmen is the result—witness, for example, Dr. Healy's recent grilling by Congressman Dingell. What do you think?

Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814. (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or comments on and suggestions for the NIHAA Update, please drop a note to the editor. We reserve the right to edit materials.

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Hundreds Honor Deputy**Fond Farewell Follows Raub to White House***By Rich McManus*

Hundreds of well-wishers crowded Wilson Hall on Nov. 25, 1991, to bid farewell to NIH deputy director Dr. William F. Raub, who ended a 25-year NIH career to take a job as special assistant for health affairs in the White House's Office of Science, Technology and Policy. He had been acting director of NIH for nearly 2 years while a successor to Dr. James Wyngaarden was sought.

"It's clear from the number of Bill's friends both past and present that he is much loved," said NIH director Dr. Bernadine Healy. "During his 25 years here, he has been known, admired and liked by an ever-growing circle of NIH'ers. He made friends by being a good friend."

Healy, who was deputy director of OSTP from 1984 to 1986, called Raub "an ideal addition to OSTP. I believe this move is a plus for Bill and a great advantage for the White House to have his insight. It's also good for NIH to have a friend in the White House."

As guests filed into the hall to greet Dr. and Mrs. Raub and partake of a generous buffet, the NIH Madrigal Singers sang softly in the background. Among their tunes was the Harold Arlen lament, "The One That Got Away."

Then a number of colleagues rose to pay tribute to a man who wanted no big fuss at all, claiming he was "just a small-town boy from Pennsylvania."

"We all know that Bill is, in fact, larger than life," commented NIAID director Dr. Anthony S. Fauci, "and my colleagues insisted that I—the shortest of the ICD directors—tell him that. I guess somehow I make the point more clearly."

"Particularly in the last couple of years, he has been something very, very

special to the ICD directors—a good friend and confidant. He's been a very good shrink when we came to his office needing intensive psychotherapy. But the main feeling we have for him is true, sincere affection."

Fauci said Raub wouldn't hear of a gift acknowledging his skillful handling of NIH during his acting directorship. So Fauci and his fellow ICD directors, recognizing that Raub always has cared about the homeless, decided to pool their gift money and write a check to Bethesda Cares, a nearby shelter. Fauci wrote a letter in the name of the directors and enclosed a check for \$460 to the organization.

Sue Ohata, a member of the OD EEO advisory committee that Raub helped form recently, presented him with a gift and thanked him "for support

and for nurturing the committee. Dr. Raub had the foresight to see the value of a diversified workforce," she said. "He understood that the workplace is enriched by diversity. One coworker once said, 'Dr. Raub always saw the diamond in us where others only saw coal.'"

Diane Armstrong, director of the Division of Equal Opportunity, said, "Dr. Raub has been a special person to all of us. He is always there for you. He gives sincere advice, and has been very special to the EEO network."

Master of ceremonies Storm Whaley, NIH associate director for communications, presented Raub with a packet of letters from those who couldn't attend the farewell. He then led the NIH Supramural ("over the wall") Singers (for whom Raub had been a lyricist at many happy occasions in the past) in a version of "Happy Birthday" as the lights in the room came up—it was Raub's 52nd birthday.

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With his wife Joyce by his side, Dr. William Raub (c) greets a guest at his farewell party on Nov. 25, 1991. Wilson Hall was packed with friends saying goodbye and wishing him well in his new assignment at the White House.

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As the audience joined the singing, two NIH'ers bore a computer-printed streamer through the audience bidding Raub a happy birthday.

"I'm glad everybody agreed to keep this simple," quipped a clearly moved Raub. "I never thought this many people would help me celebrate the 31st anniversary of my 21st birthday."

With his wife Joyce at his side, Raub said, "What's been special to me has been the people of the NIH, hundreds of you. You have always been cheerful and effective in helping me do what's best for NIH. Thank you. It's been fun. God bless you, and long live the NIH."

Many in the crowd added their signatures to a memento given to Raub, an aerial photo of NIH. R&W General Manager Randy Schools also presented him with an NIH hat and T-shirt.

A graduate of Wilkes College and the University of Pennsylvania, where he obtained his Ph.D. in physiology in 1965, William Fine Raub joined NIH on July 3, 1966, as a health scientist administrator in the then Division of Research Facilities and Resources. After 2 years there, he rose to acting chief of the Special Research Resources Branch, Division of Research Resources (now NCRR), where he spent 6 months. He remained within the division for his next job as chief of the Biotechnology Resources Branch, a post he held from 1969 to 1975.

In 1975, Raub moved to the National Eye Institute as associate director for extramural and collaborative programs.

Says NEI director Dr. Carl Kupfer, "Dr. Raub personifies the outstanding science administrator who not only was committed to supporting NIH's research effort, but also continued to carry out his own research project—the PROPHET program, a computer system that helps compare molecular structures. It's been very valuable to

many researchers."

After more than 3 years at NEI, Raub became NIH associate director for extramural research and training. Five years into that assignment he was made NIH deputy director for extramural research and training. In 1986 he became NIH deputy director, a post he continued to fill even while he was acting NIH director from August 1989 to April 1991.

Last year, Raub received the Special Recognition Award from the Association of American Medical Colleges, and the Award for Distinguished Contribution to Research Administration from the Society of Research Administrators.

During a speech at the latter award ceremony in Vancouver last October, Raub shared his ten essential attributes for the research administrator of the future.

"One reason to live until tomorrow is to keep dreaming about the tomorrows after that," he said, describing attribute number nine. "Research administrators often are the ones who are called upon to rise above the fray, if only momentarily, to take the long view on behalf of their scientific colleagues and the institution as a whole. Even crises bring opportunities if we've thought enough about where we want to go to seize the moment and make some seminal change."

As Wilson Hall bulged with employees queuing up to say goodbye, one comment could be heard repeatedly. "He's a really good guy."

Science Education Support Committee Established by NIHAA

A new NIHAA committee has been formed to provide support to the NIH Office of Education (OE). Dr. Gordon Wallace, the chairperson, is recruiting volunteers to serve on this committee.

Initially, the committee will serve three functions: assisting newly arrived fellows and their families in becoming acquainted with and settling in the community, participating in the OE Speakers Bureau, and helping to recruit fellows.

The committee will focus on clinical fellows when they visit NIH in the spring and when they all arrive in July. The committee plans to help provide information on housing, day care, shopping, public transportation and other pertinent data. It is hoped that committee members will be able to assist fellows and their families directly.

The OE Speakers Bureau now comprises NIH scientists willing to volunteer their time to help with science education in the public schools; the focus has been at the secondary level. Dr. Michael Fordis, OE director, has pointed out a need at the elementary school level where science teachers would welcome assistance in developing subject material to interest students. Alumni who would like to help at either level are welcome.

Alumni interested in working on this committee, should contact the NIHAA office, (301) 530-0567.

Calendar for Upcoming NIHAA Events

A "Mixer" sponsored by NIHAA at the AAP/ASCI/AFRC meetings, May 1-4, 1992, Baltimore, MD, will be held on Saturday, May 2, 1992, from 6 to 7:30 p.m. in the Lombard/Camden Room, Hyatt Regency, 300 Light Street, Inner Harbor.

On Thursday, May 21, 1992, from 6 to 8 p.m. the NIHAA will host a reception at the Embassy of the Federal Republic of Germany to honor the visiting German scientists at NIH. Details will be mailed to area members in April.

Relocation (continued from p. 1)

"The fact that so many people turned out to celebrate an event that took place 50 years ago is evidence of the interest people have in their government agencies, even into retirement years," said Dr. James T. Duff, chairman of the Washington NIHAA chapter and a member of the planning committee for the event. Dr. Roy Hertz, an NIH scientist emeritus, summed up everyone's feelings when he said, "It's a delight to see everyone, old friends and colleagues, and to celebrate this occasion."

Rep. Constance A. Morella of Maryland's eighth district, in which NIH is located, entered congratulations for the anniversary into the *Congressional Record*. Speaking at the seminar, she noted that the 1992 NIH budget would exceed \$9 billion, in sharp contrast to the \$707,000 budget in 1940. "Keep up the good work," she told the audience. "We are very, very proud of you. You can count on Congress to support what you are doing."

Following Morella's remarks, five NIH alumni who had participated in the move to Bethesda described NIH as it was in the late 1930's and early 1940's. Excerpts from their talks, focusing on the move, are reprinted on pp. 6-7, as



Among the attendees at the Nov. 23, 1991, meeting are (from l) Dr. Donald Fredrickson, former NIH director; Rep. Constance Morella (R-MD); Dr. Joe R. Held, NIHAA president and his wife, Carolyn.

are reminiscences of 1941 sent in by other alumni who participated in the move. Except for the small extramural program supported by NCI, the NIH in 1941 was entirely an intramural effort. The alumni asked Dr. Carl Kupfer, NEI director and NIH acting deputy director for intramural research, to conclude the seminar with observations on "NIH Today and Tomorrow."

Kupfer discussed the strategic plan being developed for NIH and noted that "demography is driving much of our thinking," since the population over the



NEI director Dr. Carl Kupfer, who is also acting NIH deputy director for intramural research, speaks to the group on the future of NIH.



Reminiscing at the party are (from l) Drs. Nelson Richtmyer, John Bozicevich, Leon Jacobs and Monroe Vincent.

age of 55 will double within the next 50 years. One goal will be "to make that life period as productive and high quality as possible," he said, stressing preventive medicine as the key. He thanked the audience for the "rare pleasure of sharing the excitement and uniqueness of NIH with such distinguished alumni."

Dr. Joe R. Held, president of the association, stated that the NIHAA "looks forward to working on additional projects with more alumni in the future." Dr. Victoria Harden, director of the NIH Historical Office and DeWitt Stetten, Jr. Museum of Medical Research, commented, "We greatly enjoyed planning this program with the alumni planning committee. Our office looks forward to working on additional projects with more alumni in the future."

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EXCERPTS FROM THE TALKS

Dr. Margaret Pittman

"I came to NIH in 1936—55 years ago—when funds were made available by the Social Security Act of 1935. This permitted the Public Health Service to employ additional staff. I was hired at a grade GS-9, salary, \$3,200. Competition was keen, and my highest previous salary had been \$2,500. . .

"There were only 325 employees at NIH. I know, because I was asked to take up the collection for the Red Cross for 3 years.

"My first work at NIH was with Dr. Sara E. Branham. She had been called there to work on meningitis. There was an epidemic in the United States, and I was to work with her on developing a mouse potency assay for antimeningitis serum. However, the test was not promulgated because the sulfonamides appeared about this time.

"The Biologics Control Laboratory moved from the 25th and E Street campus to Bethesda in the spring of 1941. We were the last ones to come out, but it was a beautiful time to move. Cherry blossoms covered the road. When we moved, I acquired my own research laboratory and took up my research on *Haemophilus influenzae* again—the organism on which I had worked at the Rockefeller Institute of Medical Research before I came to NIH."

Dr. Leon Jacobs

"It was a lot of fun working in those first few years at NIH downtown. It had become NIH in 1930, but it was a very small place. After an institute

seminar, for example, all of the scientific staff could go into the director's office for tea and cookies. The director, Dr. L. R. Thompson, a lovely man, was very influential in the establishment of NIH and in bringing it to Bethesda. . .

"When we came out in 1941, we carried a lot of our own precious material with us. We had cultures of amoebae; we had various kinds of animals infected with various species of helminths and protozoa. And we also had a piece of equipment that Dr. Charles Rees had developed. He had come on board in 1939 to work on amebiasis and had brought with him a piece of equipment called a micro-isolation apparatus, which was a jerry-built thing. You can see one of them in the DeWitt Stetten Museum in the Clinical Center. . .

"Not all of us were very happy with the move. Not all of us had cars. If you tried to get out here on the streetcar and bus on Saturday afternoon to take care of some amoeba cultures, you were pretty unhappy unless you had a car. . .

"At the 25th and E campus, there was no cafeteria. . . The media room, which prepared all the media for the bacteriology group, often cooked hot dogs for lunch and sometimes made soup. I always figured that the soup was basic stock veal infusion broth with other things added to it.

"When we moved to Bethesda, we had a cafeteria in Bldg. 1, as well as shops and a library. There was also an auditorium, so we no longer went to the director's office to have tea and cookies after seminars."

Dr. Harold Stewart

"Cancer investigators assembled in the early years by Dr. Joseph Shereschewsky of the Office of Cancer Investigations at Harvard Medical School represented a

diversity of scientific specialties. Included among us were biologists, geneticists, physicists, radiologists, biochemists, experimental cancer chemotherapists, and pathologists. Each worked individually on research projects of his own design and published independently. Equally important, all consulted among themselves, exchanged ideas, and helped one another. . . This spirit of cooperation among scientists established at Harvard under Shereschewsky shaped events that were to continue here at Bethesda.

"There were four of us pathologists: Drs. T. Hugh Grady, Stuart W. Lippincott, Jesse E. Edwards, and me. It had become obvious during the earlier years, that there were inaccuracies in some of the published reports of the pathologic diagnoses and classifications of spontaneous and experimentally induced lesions in laboratory animals. . .

"To avoid errors, the entire NCI staff, with the approval of the Director, Dr. Voegtlin, established the rule that any manuscripts that included pathologic diagnoses, descriptions or illustrations of cancers or other lesions were to be reviewed by one or another of us pathologists before submission for approval for publication. Incidentally, this rule did not automatically confer co-authorship on the part of the reviewing pathologist.

"Prior to the establishment of the *Journal of the National Cancer Institute*, our scientific papers had appeared in a variety of publications. With the



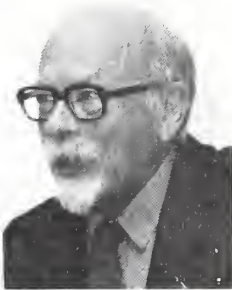
appearance of the first issue of the *JNCI* in August 1940, this became the medium of choice for our publications.

"On December 7, 1941, Pearl Harbor was bombed. During succeeding months, many of the staff volunteered for military duty. Who, in our absence, would carry on the work of experimental pathology? The pathologist who replaced us was Dr. Thelma B. Dunn. It's often been said that it's better to be lucky than to be good. And that's what happened in this circumstance . . . Dr. Dunn made remarkable contributions to cancer research from that time until her retirement in 1970 that earned for her the title, 'the first lady of cancer research.'"

Dr. Joseph Leiter

"I came to work at the NIH in 1938.

Although I was hired only as a junior chemist, with no Ph.D. yet, I had the distinction of being personally interviewed by the



first director of the Cancer Institute, Dr. Carl Voegtlin, to give you some idea of the involvement of the directors in those days. I went to work in Boston at Harvard University for Dr. Murray Shear, who saw me for the first time when I showed up.

"Shortly after the National Cancer Act was passed, at the first meeting of the National Cancer Advisory Council (NCAC), Dr. Ludvig Hektoen, the first chairman, became alarmed at a twofold increase in the incidence of lung cancer during the past 20 years. The members of the NCAC were sufficiently influential that Congress appropriated \$50,000 to establish a program in lung cancer research and in the effects of environmental hazards on lung cancer. I was one of five professionals and fifteen support staff hired for the program. The \$50,000 covered all our salaries . . .

"Techniques in those days would horrify us at the present time. We used to use such innocuous menstruums as benzene and acetone to paint on the skins of animals to see if they produced tumors. We only used the S.S. Pierce's pure leaf lard as a menstruum for the carcinogens that were injected subcutaneously. A number of interesting concepts were developed in those days, despite the fact that our techniques were crude. Shear observed, for example, that sometimes when he painted the skins of mice with coal tar, he got an improvement in the carcinogenicity. He coined the term 'co-carcinogen,' that is, a substance which, in itself, did not produce cancer, but which promoted the development of cancer."

Dr. Lewis Sargent

"Chemistry at NIH comprised two separate divisions. The earliest one was headed by the late Dr.

Claude Hudson, whose work mainly had to do with the chemistry of rare sugars, extracted from various plant materials. The other division was involved in the chemistry of morphine and drug addiction. . . . It became part of NIH in June 1939. . . . Designated as the Laboratory of Medicinal Chemistry, it moved to the Bethesda campus in May 1941 and was incorporated into the Division of Chemotherapy. . .

"When we got into the war in December 1941, we were put on a 6-day, 48-hour work week. During that period, Wilson Hall in Bldg. 1 became a blood donation center, and we were expected to report every 3-4 months to be relieved of a pint of blood. . .

"Our buildings were patrolled by armed guards at night, and the single entry road to the campus from Wisconsin Avenue had a gate-house and a railroad-like barrier. For a while we had two



interesting night watchmen. One, a Swiss, could always be counted on to look after certain chemical reactions left running overnight. . .

"Despite the frenetic activity in the lab, there occasionally was time for a noon-time softball game on the long-gone diamond in back of Bldg. 1. We are all aware of how uncomfortable Washington summers can be. Since the six original buildings were not air-conditioned, we often worked stripped to the waist in the lab. Another item of interest is the string of so-called Victory gardens that stretched along Cedar Lane from Rockville Pike nearly to Old Georgetown Road. These were really happy days. We worked very hard but also had fun."

QUOTES FROM ALUMNI REMINISCENCES

Dr. Jesse E. Edwards

"The attitude I found when I came to NIH was 'low key,' reflecting the New England campus attitude."

Dr. Walter E. Heston

"During my career of nearly 40 years at NIH, it was the best place in the world to do research."

Dr. Everette L. May

"I joined NIH in December 1941, just after the move to Bethesda. Because of World War II, our research efforts were concerned largely with malaria. A totally synthetic substitute for quinine was being sought."

Dr. Walter L. Newton

"When I first joined NIH, I was a laboratory attendant. At the time of the move, I worked with Dr. Frederick J. Brady on the transmission of amebiasis."

Dr. Benjamin Prescott

"The move was a mess. That's what I remember most, especially the unpacking and then reorganizing of everything."

Dr. Nelson K. Richtmyer

"My monthly report for May 1941 consisted of one word: 'MOVED.'"

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Dr. William Henry Sebrell

"Although a number of research projects were underway at the time we moved to the Bethesda campus, my principal work was with folic acid, first published in 1942."

Dr. Norman H. Topping

"Just before the move, Helen and I bought a house at 8000 Custer Road in Bethesda. When the NIH moved from 25th and E, our new home was just walking distance away." (from *Recollections*, by Norman Topping, with Gordon Cohn).

THE SUMMER OF 1941: A REMEMBRANCE

Dr. Thomas Kennedy, Jr.



"As a freshman medical student matriculating at Johns Hopkins in the fall of 1940, I had the opportunity to participate in the research activities of a highly regarded young associate professor of medicine, George W. Thorn. War was in the air and his laboratory had just begun a new research program in aviation physiology. When Dr. Thorn learned that I wanted to continue to do research during the upcoming summer of 1941, he suggested that rather than endure the seamy and steamy environs of East Baltimore, I instead live at my home in Washington and work on a

research project that he was carrying out in collaboration with a member of the staff of the NIH, Dr. Ben Jones. Thus, June, July and August found me commuting daily from my home in northwest Washington to the basement of Bldg. 2.

"The research related to the role, if any, of the adrenal cortex in physiological adaptation to high altitude. The subjects were rats and macaques. Altitude was simulated in a decompression chamber, located in the areaway at the northeast corner of Bldg. 2. I learned to operate the chamber, to manage the animals, to draw blood samples and to measure blood gases. By today's standards, the available repertoire of techniques was thin and the methods primitive. But it would be many years before this technology improved, and so the know-how I acquired on how to run a Van Slyke manometric blood gas analyzer stood me in good stead in later years.

Some recollections:

"Lots of helpful conversation with two people in adjoining labs: Heinz Specht, a well-established physiologist with whom I would later renew acquaintance and come to regard as a friend and colleague; and Fred Chapman, a young pathologist trained at McGill.

"A Hopkins classmate, Marty Myers, working in the lab of Dr. Jesse Greenstein in NCI (Bldg. 6).

"Excursions to a large primate facility that must have stood just about where the main entrance to the Clinical Center is now located. Stepping inside, you would encounter the terrifying spectacle of scores of monkeys, leaping at breakneck speed and wild abandon all around and about you. The 'zoo-keeper,' a famous campus character, would stand serene and unperturbed amid the chaos until the specific beast we had come to fetch came close; then, in one incredibly swift and deft move, he would snare it with an oversized

crabbing net.

"Lunches in Bldg. 1, where the elevator trip to the third floor was always an adventure.

"Treks to the Bethesda Hot Shoppe for everyone's favorite lunch: half a cantaloupe, filled with a big scoop of orange sherbet.

"Results of the summer's research were published long afterwards. For my efforts, I received the then usual reward, an acknowledgement, in a footnote, for technical assistance. But my most unforgettable memory—maybe nightmare—of the summer was of the day the monkey escaped. The technique we had been using to transfer animals from cage to operating table for bleeding was neat and generally reliable and safe.

"However, one afternoon it failed and, with a monkey loose in our lab, someone—unaware of what was going on—opened the door to come in. In a split second, the escapee bounded out into the corridor and headed straight-away toward the light at the south entrance of the building. His last great leap to freedom, however, was made before recognizing the almost invisible barrier of a heavy plate glass door. Dazed for a moment by the unexpected encounter, the animal sat briefly still.

"But when he saw us charging down the corridor in hot pursuit, he made a bee line for the nearest opening, which, unfortunately, turned out to be the laboratory of a somewhat reclusive biologist, Dr. Alex Hollander, who was studying the genetics of fungi. The walls of his lab were covered with shelves, on which Petri dishes in countless numbers were neatly stacked. The frantic monkey went from floor to table-top to shelves in a twinkling, and round and round. . . The havoc wrought was indescribable.

"I met Dr. Hollander 25 years later at an MIT retreat. Luckily, he did not recognize me."

Brief Timeline of NIH Discoveries, 1930-1940

In conjunction with the NIH Historical Office, the winter 1990 *NIHAA Update* published a timeline of NIH discoveries between 1887 and 1929. This issue continues the chronology, covering the period 1930 to 1940. As new institutes were created, investigators have been linked to specific institutes. As before, information has been drawn from many sources, and an effort has been made to link each item with one or more publications.

Part II: 1930-1940

1930



The Hygienic Laboratory was renamed "National Institute of Health" through the Ransdell Act.

1930

Ralph Lillie demonstrated that the cause of psittacosis was a rickettsia-like organism (later placed in the genus *Chlamydia*) instead of a virus. The research of his colleague Charles Armstrong on this disease resulted in governmental regulation of the importation of psittacine birds.

1930

Maurice I. Smith developed a quantitative colorimetric reaction for the ergot alkaloids.

1930



Sara E. Branham identified a new organism, *Neisseria flavescens*, as a rare cause of meningitis and septicemia in humans, but one requiring careful differentiation from meningococcus. In 1970 she was honored posthumously by the name of a new genus, *Branhamella*.

1930

Maurice I. Smith, Elias Elvove and their collaborators discovered the cause of "Jamaican Ginger" paralysis.

1931

Rolla E. Dyer, Lucius F. Badger, and Adolph S. Rumreich demonstrated that Rocky Mountain spotted fever existed on the eastern seaboard of the United States and that endemic (murine) typhus was transmitted by rat fleas.

1931



H. Trendley Dean (above) and Elias Elvove started work on the mystery of "mottled enamel"—later called

fluorosis. During the next 10 years, aided by Frank McClure and Francis Arnold, they laid the basis for the controlled use of fluoride to prevent cavities.

1932

A section on heart disease supervised by Arthur M. Stimson began to study the causes of rheumatic fever. This signaled the first involvement of NIH with heart disease.

1933

Louis Schwartz, F.C. Makepeace, and H. Trendley Dean published findings showing the hazardous effects of radium dial painting.

1934

Charles Armstrong and Ralph D. Lillie identified the lymphocytic choriomeningitis virus that caused a disease, commonly termed "Armstrong's disease," in house mice and in humans exposed to infected mice.

1934



Ida A. Bengtson began standardization of antitoxin for six species of *Clostridium* which cause gas gangrene.

(continued on p. 10)

(continued from p. 9)

1935

Lawrence Kolb reported a series of studies on innovative treatment for drug addicts who were patients in the PHS Hospital in Lexington, Kentucky.

1936-40

Maurice I. Smith, Ralph D. Lillie, and Benton B. Westfall reported on the toxicology, pathology and metabolism of selenium.

1937

The National Cancer Institute was established by Congress.

1937

Sanford M. Rosenthal, Hugo Bauer and Sara E. Branham began pioneering work on the sulfonamides and their application to humans in the treatment of bacterial infections.

1937

Maurice C. Hall, Willard H. Wright and colleagues launched a series of studies that demonstrated the extent of human trichinosis in the United States and contributed to methods for its control.

1937

Maurice C. Hall developed a technique, known as the "NIH swab," to diagnose enterobiasis; it is still the accepted technique.



1937

Margaret Pittman, Sara E. Branham, and E. M. Sockrider showed the type specificity of meningococcus by use of the Petrie's precipitin test.

1938



Margaret Pittman (I) showed that the precipitin reaction around meningococcus colonies on immune serum agar plates was directly correlated with the mouse potency assay of each lot of antiserum.

1937-38

Henry Klein, Carroll E. Palmer, John W. Knutson devised a DMF (Decayed, Missing, Filled) Index guide that became the standard epidemiological tool for studies and surveys of children's dental status.

1937-41



The Office of Cancer Investigations, 1939, Cambridge, Mass.

Harold L. Stewart and Howard B. Andervont of NCI first described the pathology and proper histological classification of the adenomatous lesion of the glandular stomach of strain I mice, which was important to the understanding of carcinogenesis.

1938-41

The National Institute of Health moved to its Bethesda, Maryland location.



1938



Herald R. Cox discovered that rickettsiae could be cultivated successfully in the yolksacs of chick embryos. During World War II, all rickettsial vaccines were produced by this method.

1938

Gordon E. Davis and Herald R. Cox identified a new rickettsial disease, which they called Nine Mile fever. Rolla E. Dyer first showed the relationship of the organism to that of Australian Q fever, and its identity was subsequently confirmed by the complement-fixation and vaccine studies of Ida A. Bengtson.

1938

W. Henry Sebrell and Roy F. Butler published the first clinical description of ariboflavinosis, a human riboflavin deficiency.

1938-40

Murray J. Shear of NCI reported that a basic fraction of creosote oil enhanced the production of mouse tumors. He termed this fraction to be a "cocarcinogen."

1938-50

John Bozicevich developed immunological methods for the diagnosis of helminth parasitic infections.

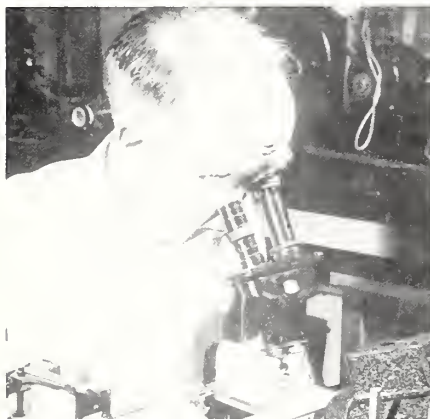
1939

Charles Armstrong adapted the Lansing strain of poliomyelitis to cotton rats and then to laboratory mice, thus providing investigators with an inexpensive experimental animal for polio studies.

1939

Louis Schwartz and H. R. Foerster described industrial dermatitis and melanosis due to photosensitization.

1938-40



Charles W. Rees developed a micro-manipulator that permitted microscopic handling of amoebic cysts as well as other organisms.

1930's-40



Two of Claude Hudson's many contributions to carbohydrate chemistry: 1) he showed that mutarotation of natural glucose in water was subject to general acid-base catalysis; 2) he developed a "lactone rule," noting that the optical rotatory sign of an aldonic acid lactone was controlled by the configuration of the carbon bearing the hydroxyl group involved in the ring closure.

1930's



Sanford M. Rosenthal developed a treatment for mercury poisoning used widely before the advent of dimer-captoethanol.

1930's

Margaret Pittman extended investigations on potency requirements for

Haemophilus influenzae antiserum and diagnosis requirements of the six capsular types.

1939

Margaret Pittman showed that sulfapyridine was effective against non-type-specific *Haemophilus influenzae*.

1930's

Howard B. Andervont's research at NCI increased understanding of genetic factors in mammary, hepatic and pulmonary tumors in mice.

1930's

Jerald G. Wooley and W. Henry Sebrell developed the first satisfactory diets for experimental rabbits and investigated the connection between nutrition and infection by studying pneumococcus-infected mice that were deficient in thiamine and riboflavin.

1940

Karl Habel produced an improved, killed rabies vaccine that eliminated the foreign brain tissue that had caused paralysis in some patients.



1939-40

Hugh G. Grady and Harold L. Stewart of NCI first identified the type II cell of the pulmonary alveolus as the cell of origin of the common alveogenic tumors in the lungs of mice.

You will soon be receiving a dues renewal notice from NIHAA. Please return it promptly. Dues are an important source of our income and we need your continued support.

News From and About NIHAA Members

Dr. Carolyn H. Asbury, who was a science writer at NINCDS until 1980, and then a senior program officer at the Robert Wood Johnson Foundation, has been named deputy director in the health and human services program at the Pew Charitable Trusts, which is a national philanthropy based in Philadelphia. The Trusts support nonprofit activities in the areas of conservation and the environment, culture, education, health and human services, public policy, and religion. In her new position she "will be responsible for developing and overseeing grants to nonprofit organizations in such areas as health and human services for children and youth at risk, populations with special needs, and the elderly."

Dr. Rita R. Colwell, formerly a member of a microbiology training



committee at NIGMS from 1970 until 1973, is now president of the Maryland Biotechnology Institute at the University of Maryland, an independent research component of the University of Maryland System that furthers the scientific development and transfer of technology from the laboratory to the marketplace. She is also a researcher at MBI's Center of Marine Biotechnology, where she has spent years working on cholera bacteria. In March 1991, she was inducted into the Maryland Women's Hall of Fame. Currently she is also president of the International Union of Microbiological Societies and in May 1991 was awarded the Purkinje Gold Medal for Achievement in the Biosciences by the Czechoslovak Academy of Sciences.

Dr. Bernard D. Davis, who is on the NIHAA Board of Contributing Editors, was a former Fogarty scholar-in-residence, and is Lehman professor of bacterial physiology emeritus at Harvard Medical School, has edited a book, *The Genetic Revolution: Scientific Prospects and Public Perceptions* (Johns Hopkins; \$45, cloth; \$15.95, paper). He and others address the problems and consequences that many fear may arise from the growth of biotechnology. They include explanations of molecular genetics, its practical applications in biotechnology, its legal implications, and its interesting historical context.

Dr. Vincent T. DeVita Jr., former NCI director who was at NCI from 1963 to 1988, and is now at Memorial Sloan-Kettering Cancer Center, NY, has been elected to the board of directors of ImClone Systems, Inc. ImClone Systems is a biopharmaceutical company engaged in developing therapeutic products to treat selected cancers and other diseases. Its cancer therapeutic, BEC-2, recently entered a phase I clinical trial for treatment of malignant melanoma.

Dr. Anne M. Dranginis, who was a senior staff fellow in NIDDK's Laboratory of Cellular and Developmental Biology from October 1984 to January 1992, writes that "as of 1/1/92 my new position is Clare Booth Luce professor of biological sciences at St. John's University in Jamaica, NY. The position is funded by the Luce Foundation."

Dr. Daniel W. Drell, who was in the Laboratory of Oral Medicine, NIDR, from 1983 to 1986, writes, "At the end of April 1991, I joined the Human Genome Program in the Department of Energy... In a bit of a departure from their customary realms both DOE and NIH support a limited program in ethical, legal, and social research of the genome program (my role at present). In making this career move, I've left the laboratory bench for an office and a computer; I travel more often and talk on the telephone and by E-mail a lot more than I used to. The excitement is great, though, because I'm at the center of a new, important, and very promising government (yes!) activity. Unlike other 'Big Science' programs, the Genome Project doesn't depend on completion before society benefits: the advances in knowledge, better understanding of ourselves and the disease processes we suffer from, will come steadily and in direct proportion to the effort we make."

Dr. Timothy J. Eberlein, a clinical associate and investigator at NCI from 1979 to 1982, and currently chief of surgical oncology at the Brigham and Women's Hospital in Boston as well as a member of the experimental therapeutics study section II, has recently been awarded a Faculty Research Award from the American Cancer Society. As director of the biologic cancer therapy program at Brigham, he will utilize these funds to further his

work in immunotherapy in an attempt to unravel and understand the exact mechanisms involved in the eradication of tumors.

Dr. Donald S. Fredrickson, former NIH director and now a scholar at the National Library of Medicine, recently was honored by Sandoz Research Institute and the International Atherosclerosis Society for his outstanding work in lipid research. At a special awards dinner during the 9th International Symposium on Atherosclerosis, Sandoz Research announced the establishment, in conjunction with IAS, of the Donald S. Fredrickson Lectureship. It will be awarded to a person every 3 years for major achievements and advancements in lipid research. The recipient will be invited to deliver the lecture at the IAS convention. Also, during the awards dinner, Fredrickson received a lifetime achievement award from Sandoz Research.

Dr. Joe R. Held, director of DRS in 1972-1984 and current president of the NIH Alumni Association, has recently joined Microbiological Associates, Inc. as administrative director of its biotechnology group. The group designs and performs thousands of short-term biological safety tests that benefit more than 400 of the world's foremost corporations and research institutes. His duties include directing the activities of laboratory animal health services, which monitors the health of animal colonies in research and testing laboratories, breeding facilities, and ascites production facilities. He will also assume administrative responsibilities for other divisions of the biotechnology group.

Dr. Jane E. Henney, who was NCI deputy director and also a medical oncologist at the institute from 1976 to 1985, has been named by the Food and Drug Administration to be its deputy commissioner for operations, a newly created position to manage FDA's day-to-day activities. She had been vice chancellor at the University of Kansas Medical Center, Kansas City. In her new position she will also advise the FDA commissioner, Dr. David A. Kessler, on all issues affecting the agency's performance. In his announcement of the appointment, Kessler said, "Her impressive background in government and academia make her uniquely suited to helping manage the FDA." She started in January 1992.

Dr. Kurt J. Isselbacher received the 1991 Bristol-Myers Squibb/Mead John-



son Award for Distinguished Achievement in Nutrition Research for defining the fundamental mechanisms of intestinal nutrient absorption and discovering the altered nutritional behavior of cancer cells. The award, consisting of a \$50,000 prize and a silver medallion, is given annually to a scientist who has

made a unique contribution to fundamental or clinical human nutrition research. He was cited because his "innovative research identified the basis of several hereditary and acquired disorders of abnormal nutrient metabolism, including galactosemia, fatty liver, abetalipoproteinemia, and isovaleric acidemia." These findings led to effective therapy for these conditions. Isselbacher is now Mallinckrodt professor of medicine at Harvard Medical School and director of the Massachusetts General Hospital's Cancer Center. He was at NIH in the mid 1950's at NIAMD where he identified the enzyme defect that results in galactosemia.

Dr. Leon Jacobs, who has been involved with NIH in various capacities and positions since 1937 and is now scientist emeritus, NIAID, delivered on Nov. 27, 1991, the first Gorgas Memorial/Leon Jacobs Lecture. The executive committee and board of directors of the Gorgas Memorial Institute of Tropical and Preventive Medicine established an endowment for a lectureship in his name. He has been the chairman of the board and president of the Gorgas Institute since 1983. He spoke on parasitology and tropical medicine researchers who have made notable contributions to the field.

Dr. Lewis L. Judd, chairman of the department of psychiatry at University of California, San Diego School of Medicine, and former director of NIMH from 1988 to 1990, has been named the first recipient of the Mary Gilman Marston Endowed Chair in Psychiatry. The \$250,000 chair will help support research, education and patient care in psychiatry at UCSD.

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Dr. Sewa Legha, who worked as a clinical associate at the Investigational Drug Branch, CTEP, DCT, NCI, 1974-1976, writes that he is currently professor of medicine, department of medical oncology, the University of Texas M.D. Anderson Cancer Center, where he has been named chief of the newly created section of melanoma as of Sept. 1, 1991.

Terry Lierman, an NIH intern in several institutes from 1971 to 1974, has been recently appointed by presidential candidate Sen. Tom Harkin (D-Iowa) as issues coordinator and domestic policy advisor to his campaign for the presidency. Lierman has been for 5 years the executive director of the National Coalition for Cancer Research. The coalition, comprising most major U. S. cancer organizations, supports the purposes of the National Cancer Act. In addition, Lierman is president of Capitol Associates, a Washington, D. C.-based government relations firm, and is a former staff director of the Senate Appropriations Committee.

Dr. Fitzhugh Mullan, who was at NIH from 1982 to 1984, is now the director, Bureau of Health Professions, Health Resources and Services Administration, Rockville, Md. He is also chair of the National Coalition for Cancer Survivorship (NCCS). He "doesn't see its role as one of activism, but education—building a smart, knowledgeable, consumer membership." NCCS has recently moved its national office to Washington, D.C., and the organization plans to keep members informed about legislative matters. Policy issues such as health insurance will be a major theme for 1992, with community development and organization as well as education



remaining major goals. Mullan wrote a book in 1983, *Vital Signs: A Young Doctor's Struggle with Cancer*.

Hazel W. Rea, who has been at NIH since 1949, writes: "In Sept. 1990 I retired from my position as Deputy Director, Intramural Research, NIMH and—with no break in service—accepted a half-time position as Senior Advisor to the Director, IRP. It's the best of all possible worlds for a gal whose 81st birthday arrived on Feb. 2, 1992."

Dr. John C. Ruckdeschel, a staff associate at NCI from 1972 to 1975,



and a visiting scientist 1983-84, and who then went to Albany Medical College, NY, where he was head of the Joint Center for Cancer and Blood Diseases and the Division of Medical Oncology, has been named the new director and chief executive officer of the H. Lee Moffitt Cancer Center and Research Institute in Tampa. The Moffitt Cancer Center is a freestanding teaching affiliate of the University of South Florida Health Sciences Center.

Dr. Jesse Steinfeld, former U. S. surgeon general, who was at NCI during the 1950's and late 1960's, was honored by the American Cancer Society for "encouraging pioneering research on the effects of involuntary smoking and for serving the American Cancer Society for 15 years as member of the Committee on Tobacco and Cancer."

Dr. Robert H. Waldman, a clinical associate at NIAID from 1965 to 1967, writes: "I have moved from the University of Nebraska College of Medicine to the Association of American Medical Colleges, where I am Vice-President for Graduate Medical Education and Executive Director of the National Resident Matching Program."

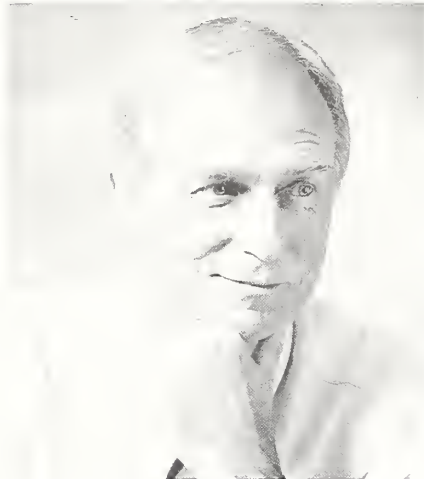
Dr. Gordon Wallace, who was associate director for intramural research, NIAID, 1960-86, writes that he retired from the USPHS in 1986, after 32 years of service. Upon retirement, he joined Ling Technologies, a newly founded Maryland firm dedicated to private sector/federal laboratory relationships, primarily to stimulate technology transfer. After 2 years at Ling Technologies, he started Wallace Biotechnology Associates, focusing on technology transfer in the life sciences. Early in 1989, he cofounded Bio-Brite, Inc. to develop

and market the "light visor," a product based on pioneering research at the NIMH on light therapy for the treatment of Seasonal Affective Disorder (SAD), commonly referred to as winter depression. After 3 years of struggle as a start-up company, Bio-Brite is now marketing the light visor.

Paul G. Waugaman, who was at NINCDS from 1965 to 1977, and at NIEHS from 1977 to 1984, writes: "I left NIH work-wise in 1984 and spent a year on the staff of the NC Governor's Board of Science and Technology. During that year I was officially on leave from NINCDS. In 1985 I went to Wake Forest University's Bowman Gray School of Medicine, where I organized the university's technology licensing and patenting program and coordinated industry-sponsored research. In March 1991 I accepted an offer to come to North Carolina State University to take over the university's technology administration program with the title assistant vice chancellor for research. Despite the fact NCSU has no medical school, we are deeply involved in biomedical research through our College of Veterinary Medicine and biotechnology and toxicology research in our College of Agriculture and Life Science. Even our food science department is involved in disease prevention through control of food-borne pathogens! Remember good biomedical research is not limited to medical institutions."

Dr. Gary Williams, who was at NCI in the Etiology Division 1969-1971, and who is now director of medical sciences at the American Health Foundation in Valhalla, NY, writes that he is organizing a short course on pre-clinical drug and chemical safety to be held in Tarrytown, NY, Sept. 21-25, 1992.

Dr. Mark C. Willingham, who was at the Division of Cancer Biology, Diagnosis, and Centers, NCI, from 1971 to 1991, retired from the USPHS on Sept. 1, 1991, and currently is professor and director of immunopathology, department of pathology and laboratory medicine at the Medical University of South Carolina in Charleston.



Dr. H. Rodney Withers has been appointed professor and chief of the experimental radiation oncology program in the department of radiation oncology at the UCLA School of Medicine and the Jonsson Cancer Center. He writes, "I spent two enjoyable years from 1989-1991 putting together an Institute of Oncology in Sydney before returning to UCLA. The standard of clinical oncology there is high. Also, I was working with clinical oncologists of all disciplines who had strong commitments to multidisciplinary cooperation in patient management, which made my job very easy. There is now also more emphasis on, and support for research compared with 1966 when I left there the first time to work at NCI in the research laboratory of Mort Elkind. I enjoyed the challenges in Sydney, but it felt good getting back to my research laboratory at UCLA."

President's Page

What Is Happening with The Alumni Association?

By Joe R. Held

The NIH Alumni Association's celebration of the 50th anniversary of NIH's move to Bethesda, which took place on Nov. 23, 1991, was very successful. Details regarding that event are covered elsewhere in this issue. Special thanks go to everyone involved with the meeting.

In an organization such as ours, committees are essential to the success of various activities. The chairpersons for our standing committees are: Cal Baldwin, nominating committee; Cal Baldwin (acting), finance committee; Dr. John Sherman, awards committee; and Dr. Tom Kennedy, membership and chapters committee.

Special credit should go to the nominating committee for having recruited four outstanding individuals for the board of directors who have just started serving in this capacity: Dr. J. Richard Crout, Dr. John Decker, Mr. Charles Miller II, and Dr. David Rall. We welcome them to the board, and would like to thank them for their willingness to serve.

One of our key committees since the formation of the association has been the *NIHAA Update* editorial advisory committee, which was initiated under the chairmanship of Richard McManus. Rich has asked to relinquish the chair, but will continue to give us the benefit of his counsel by serving on the committee. We are pleased to announce that, effective with this edition, Dr. Robert G. Martin is the new chairman.

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Our other committees and their chairpersons are: science education support, Dr. Gordon Wallace; special events, Randy Schools; historical, Dr. Leon Jacobs; volunteers, Dr. Mary Sears; alumni house, Dr. Abner Notkins. These committees are in need of additional members, and all our membership is invited to volunteer for service on them by either contacting the specific chairperson, or Harriet Greenwald, or me.

A small delegation of us is to represent the NIHAA at a special celebration of the Taiwan Chapter on Feb. 22, 1992. This will be a special 30th anniversary celebration of the first fellowships that were awarded for fellows from Taiwan to come to the NIH for postdoctoral studies in 1962. There were three fellows that year, and the two surviving individuals also will be participating in this celebration, which will include a scientific symposium. We will have more about this meeting in our next issue.

We are looking forward to expanding our membership and chapters. The membership and chapters committee has just completed plans for a "new categories" membership that will make it possible for various institutions and friends to join our association rolls. More information will be forthcoming soon. We also want to call your attention to the special note on p. 4 in this issue of the *Update* regarding the science education support committee and its activities. The committee is working closely with Dr. Michael Fordis to develop activities that can complement and support those of the NIH Office of Education, which he heads.

We will hold our annual meeting on Saturday, Mar. 21, 1992, at the Mary Woodard Lasker Center. Dr. W. French Anderson will talk to us on "Human Gene Therapy." I hope to see you there.

Attention

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update*.

Name

Home phone

Home address

News, include dates/position at NIH and photo if possible.

Suggestions for newsletter

Suggestions for NIHAA

Science Research Updates

OPTIC NERVE TREATMENT FOUND INEFFECTIVE ALONE

Although commonly used, oral corticosteroids alone are ineffective in treating optic neuritis, a debilitating inflammation of the optic nerve, and actually increase a person's risk for future attacks, according to a large National Eye Institute-supported clinical trial published recently in the *New England Journal of Medicine*.

This unexpected finding calls into question the benefit of treating related demyelinating neurological diseases such as multiple sclerosis with oral corticosteroids. Demyelinating diseases are characterized by progressive damage to the lipid sheaths that insulate nerve fibers.

Most neurologists and ophthalmologists now treat optic neuritis with oral corticosteroids, based on anecdotal reports that these anti-inflammatory agents improve patient recovery.

The optic neuritis treatment trial, which involved more than 450 patients at 15 clinical centers nationwide, is the first randomized clinical trial to evaluate corticosteroid therapy for optic neuritis.

Optic neuritis affects more than 25,000 Americans each year, primarily women between ages 18 and 45. People with the disease have rapid vision loss and usually have ocular pain. If left untreated, some patients regain normal vision after several months of gradual improvement, but most are left with at least some visual deficit. Because a significant number of people who have an initial attack of optic neuritis later develop multiple sclerosis, many physicians consider optic neuritis a precursor or manifestation of the disease.

"We believe based on our results that

there is no role for oral prednisone alone in the treatment of patients with initial episodes of optic neuritis," said Dr. Roy Beck, professor of ophthalmology at the University of South Florida and study chairman.

Since the eye is such an excellent model for brain research, the trial's findings may have implications for corticosteroid treatment of other demyelinating neurological diseases.

"Nearly 40 percent of sensory input to the brain originates in the eye," said Dr. Carl Kupfer, NEI director. "Vision research not only reveals the dynamics of ocular disease, but its results may also be applied to many disorders that affect the brain."

NEW TECHNIQUE PROMISES TO SIMPLIFY GENE MAPPING

NIDDK researchers have developed a new method of cutting fragments of DNA out of the human genome that permits any large segment of human DNA to be targeted and removed for mapping, cloning, or sequencing. This technique promises to revolutionize gene mapping and may one day be useful for the treatment of human genetic disease.

Previous methods for cutting DNA limited the size of the DNA segments that could be removed for study and the precision with which investigators could target the sections they wanted to cut out. To create their "molecular scissors," Dr. Daniel Camerini-Otero and his collaborators developed a way to control where restriction enzymes—commonly used in gene research—cut DNA. Restriction enzymes recognize a specific sequence of DNA bases and cut the molecule wherever that sequence occurs. To increase the selectivity with which the restriction enzymes cut, the researchers used the bacterial protein, rec A. Rec A can link up or hybridize any short single strand

of nucleotides (oligonucleotides) to a matching double-stranded sequence to form a triple-stranded or triplex DNA. To excise a desired stretch of DNA, the scientists made two oligonucleotides, each of which bind specifically to a unique sequence spanning a restriction enzyme cutting site near each end of the target stretch of DNA.



Dr. R. Daniel Camerini-Otero, chief of NIDDK's Genetics and Biochemistry Branch, holding a model of his "molecular scissors."

The DNA was then treated (methylated) so that the restriction enzyme would not cut at any of the other restriction sites in the DNA chain. The short three-stranded regions, however, were protected from methylation. When the DNA was treated to remove the protective third strands, restriction enzymes then cut primarily at those sites that had been protected from methylation, yielding the desired length of DNA.

This technique permits scientists to measure long distances between genes and markers on DNA much more easily than with current technology, and to remove long sequences for cloning. The group speculates that it may ultimately be possible to adapt the process in order to excise DNA within a cell.

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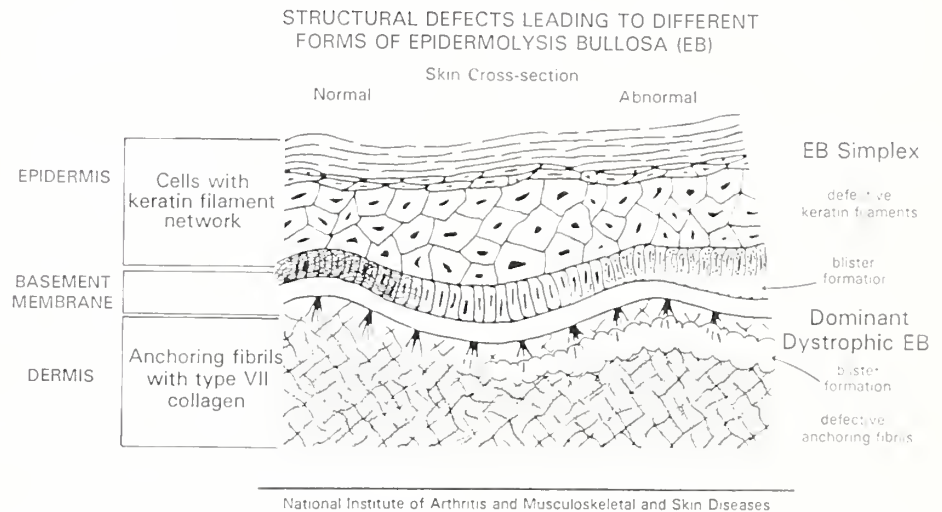
GENE TRANSFER YIELDS FUNCTIONING HUMAN CYSTIC FIBROSIS GENE IN RAT LUNGS

NHLBI scientists have used a genetically modified cold virus to introduce a normal copy of the human gene involved in cystic fibrosis (CF) into the lungs of live animals, fueling hopes for a cure for this lethal genetic disease.

The advance follows by 2 years the discovery of the CF transmembrane conductance regulator (CFTR) gene and the mutation in that gene that accounts for most cases of CF. This discovery, in turn, culminated a decades-long and often deeply frustrating search for the underlying mechanism of CF. Analysis of the protein product of the gene confirmed earlier work that had identified ion channels in the epithelial cells of mucus, salivary, and sweat glands and the pancreas as the central players in defective CF physiology. In people with CF, a malfunctioning ion transport system results in abnormal exchange of sodium and chloride across the epithelia in these glands. In the lungs this results in abnormal fluid balance, leading to thick, viscous mucus which is difficult to cough up and forms a breeding ground for bacteria.

In the present advance, scientists led by Dr. Ronald Crystal inserted a normal CFTR gene into an adenovirus, one of the types of viruses that cause the common cold. The virus naturally seeks out cells lining the lungs, and it was crippled so that it could not cause illness. Tests of rats that received the altered viruses showed that the inserted gene was successfully instructing the lung cells to manufacture the human CFTR protein.

The scientists must conduct efficacy and safety tests and human clinical trials before the promising research becomes a therapeutic reality for those with CF.



RESEARCH TEAMS REVEAL CAUSES OF RARE BLISTERING SKIN DISEASES

Three NIAMS-supported scientific teams working independently have linked a group of hereditary blistering diseases—known collectively as epidermolysis bullosa (EB)—to genes for crucial structural proteins in skin, revealing why skin disintegrates in these diseases.

The research has also shed light on the structural network of normal skin cells and should contribute to an understanding of how wounds heal and what happens to the skin's structure as it ages.

EB is a group of diseases that cause varying degrees of blistering and scarring in affected persons. One research group, led by Dr. Ervin Epstein, San Francisco General Hospital, University of California, San Francisco, discovered that defects in two separate genes for fibrous skin proteins, keratins, are linked to EB simplex in two families. In EB simplex, nonscarring blisters form in the epidermis or outer skin layer. Keratins are the most abundant protein in epidermal cells. There, when properly formed, they construct an internal, web-like network that

mechanically stabilizes epidermal cells, as shown in the work of another team, this one led by Dr. Elaine Fuchs, Howard Hughes Medical Institute, University of Chicago. Fuchs' team discovered defects in a human gene for keratin in patients with EB simplex and provided laboratory evidence that shows how abnormal keratins, the product of disrupted genes, lead to skin fragility.

A third group led by Dr. Jouni Uitto, Jefferson Institute of Molecular Medicine in Philadelphia, discovered that dominant dystrophic EB (DDEB) is linked to the gene for type VII collagen. In dominant dystrophic EB, scarring blisters form within the inner skin layer or dermis. Type VII collagen is the major component of the anchoring fibrils, which appear to stitch the epidermis to the dermis. For 10 years, clinicians have noted reduced or absent type VII collagen in skin samples from patients with DDEB, strongly suggesting that its disruption leads to the disease's characteristic deep blistering.

Up to 50,000 people in the United States are estimated to have some form of EB. The studies by Epstein, Fuchs, and Uitto and other ongoing work on keratins and type VII collagens are helping explain these diseases. They also point to treatment possibilities for EB and other wounds such as the development of cultured grafts in which skin cells are genetically altered and transplanted back into patients.

INEXPENSIVE DRUG MOST EFFECTIVE FOR PREVENTING RECURRENT AIDS ASSOCIATED PNEUMONIA

A study by NIAID's AIDS Clinical Trials Group has shown an inexpensive drug used to treat *Pneumocystis carinii* pneumonia (PCP) to be superior to the only drug currently approved for PCP prophylaxis in preventing a second episode of PCP.

PCP is the most common life-threatening opportunistic infection affecting Americans with AIDS. Aerosolized pentamidine is the only drug currently licensed for prevention of PCP. The drug has minimal toxicity, and many physicians prescribe aerosolized pentamidine for secondary PCP prophylaxis as well.

In this study, 310 volunteers who had received therapy for an initial episode of PCP were assigned randomly to receive either oral trimethoprim/sulfamethoxazole (TMP/SMX) daily or aerosolized pentamidine every 4 weeks. Participants also received zidovudine (AZT) every 4 hours, or if they became intolerant to AZT, they were given ddI or ddC, two other anti-AIDS drugs.

The risk of recurrent PCP was 3.25 times greater in patients who received AZT plus preventive aerosolized pentamidine than in those patients who

received AZT plus preventive therapy with the less costly drug. The study was halted 9 months earlier than originally scheduled in the wake of this finding.

Ninety deaths occurred among the study participants, but there was no significant difference in life expectancy between the two groups. Only five of the study participants actually died from recurrent PCP (three in the group assigned to TMP/SMX and two in the group assigned to pentamidine). Most died from complications of their HIV-associated opportunistic infections or cancers, or because of HIV-associated wasting syndrome. The fact that so few participants died of PCP reflects improvements in recent years in the management of PCP.

The investigators point out that these results do not mean that TMP/SMX is the drug of choice for all patients. In the study, 27 percent of the TMP/SMX patients and 4 percent of the aerosolized pentamidine patients were switched to the other therapy because of side effects presumed to be related to the study medications.

An article in the August 14, 1991 issue of the *Journal of the American Medical Association* estimated that a strategy using TMP/SMX as first-line therapy for secondary PCP prophylaxis in patients able to tolerate either drug could result in a net savings of nearly \$3,000 per patient per year.

MANY INFANTS ACQUIRE AIDS VIRUS AT BIRTH, TWIN STUDY SUGGESTS

A study that looked at the rates with which twins acquire human immunodeficiency virus (HIV) infection from their HIV-positive mothers suggests that, in a large proportion of newborns,

HIV-infection occurs at or near birth, rather than earlier during pregnancy.

Women infected with HIV transmit the infection to some, but not all, of their offspring. Studies have shown transmission rates ranging from 13 percent to 40 percent.

NCI's Dr. James J. Goedert and colleagues obtained reports on 100 sets of twins and one set of triplets born to HIV-infected women. Forty investigators in nine countries contributed data to the study.

In 22 of the 66 sets of twins with complete data, the NCI scientists found that only one twin acquired HIV infection. Eighteen of these 22 infected twins were first-borns. Among first-borns, 50 percent of those delivered vaginally and 38 percent of those delivered by cesarean section were infected, compared with 19 percent of second-borns delivered by either route.

According to the investigators, the results suggests that many infants remain uninfected until delivery and that specific measures—such as cleansing the birth canal of HIV-infected women before delivery—might prevent some of these infections.

In addition to the association with birth order, the investigators found that infection status was alike in 14 of 17 sets of identical twins but in only 26 of 43 sets of non-identical twins. These results suggest that genetics may also play some role in determining whether or not infection occurs, since only identical twins have exactly the same genes.

This material was compiled by Charlotte Armstrong, Office of Communications, OD.

Town Meeting (continued from p. 1)

The 1 1/2-hour session was punctuated by witty exchanges, heartfelt pleas, campaign rhetoric, and an underlying sense of purpose as the seven campus leaders made their cases in a series of short synopses.

Healy led off the proceedings, which she moderated, by underscoring her support for town meetings.

"I am committed to continuing them as long as you keep coming," she told a packed Masur Auditorium and, via television, outposts in other campus buildings and audiences at NIEHS, NIAID-Montana, NIA-Baltimore, NCI-Frederick, and NHLBI-Framingham, Mass.

"Each one of you—whether you're a doctor, an electrician, secretary, grounds-keeper or policeman—is important to the mission of NIH," she said, justifying town meetings as an apt political metaphor for democracy. "NIH should be politics at its best."

Emphasizing that NIH "is not about science for its own sake, but about searching for cures for people who need them," Healy asked the panel, "How can we do better? How can we hurry?"

Her only caveat as she threw open the floor was that "we deal with the larger issues affecting NIH. I want this to be a lofty gripe session, not an ordinary gripe session."

Mason began with an endorsement of NIH's effort at self-improvement. "I support all your efforts to create a better NIH," he said. "The list of people who owe their lives to this agency is far more impressive to me than the number of Nobel prizes your scientists have earned."

Introduced by Healy as the "science senator," Mikulski called town meetings "timely and urgent" and promised to scrutinize the NIH reauthorization

bill in Congress. "It needs to be as contemporary as the modern NIH," she said.

"Now that the Persian Gulf war is over, it's time to win the war for America's future," said Mikulski, who was making her third NIH visit since 1986. "If we work together, we can win the war for America's future just as we won the war in the desert."

Calling herself "one of the biggest fans of NIH," Mikulski said the agency is the "jewel in the crown" of the "corridor for the future" that lies between Baltimore and Washington and includes FDA, NASA, the National Institute of Standards and Technology, and NIH.

"NIH plays a life-saving role in the world's future," she declared. "I'm very proud to represent you, and I'm going to listen to those ideas that support you and this facility."

She allowed that Congress can be an obstacle to NIH: "There's a disease-of-the-week mentality that prevails some times. It gets the headlines, but contributes little to NIH's bottom line."

Mikulski called for a clear set of national goals, sustained funding, and a strategic plan—all initiatives supported already by Healy. She added, "People should not be penalized for working at NIH. I think sometimes your peers at Johns Hopkins are better off than you are at NIH."

Moderator Healy then observed that the senator "would play a skinny Oprah Winfrey" for the following panel discussion and would accept questions phoned in via fax machine.

"We'll be fax friends," quipped Mikulski.

NCI Surgery Branch chief Dr. Steven Rosenberg, a 17-year veteran of NIH, opened the testimony with a review of why NIH is good and how it must be better.

"NIH is a last resort for people with serious diseases. But a serious problem confronts senior scientists here. We're at a competitive disadvantage with respect to academic institutions. We're losing many of our best senior scientists, which is destroying the continuity of our efforts.

"Those who leave are getting two to three times their federal salaries, they are able to accept honoraria, and they are eligible for tuition credit for their kids. The rules are far, far more restrictive at NIH than at other institutions.

"We are losing people at the most productive times of their careers," he continued. "It's not that we don't have enough (budget)—we have a great deal—but in our current situation we just cannot compete with other academic institutions."



Dr. Steven Rosenberg addresses his concerns to Mikulski. He is flanked by Dr. Richard Klausner (l) and Drs. Ruth Kirschstein and Samuel Broder.

Speaking next was Dr. Richard Klausner, who, in addition to being chief of NICHD's Cell Biology and Metabolism Branch, is head of a task force on the intramural research program appointed by Healy.

"When examining the morale of intramural scientists, you have to consider why they come to NIH," he said. "They come for training, which is among the best in the world, and they come to do their life's work here. A problem arises because their work is frustrated by paperwork, rules and regulations that were never designed or tailored to the needs of this environment.

"All institutions have this problem," he allowed. "But the bureaucratic hurdles here affect all aspects of how we do business. There are hoops we have to jump through for procurement."

Among the problems involved with being a government scientist, he said, were that "we are inhibited from participating in the international research community (by travel restrictions). Also, there is not a personnel system at NIH, but a byzantine collection of personnel systems. There are artificial FTE ceilings, and pointless categories and classifications for employees. We need an integrated, free personnel system designed specifically for a biomedical research institution.

"NIH is fragile," he continued. "It depends on the ability to retain and support the best people. Changes must occur for NIH to remain the international beacon of biomedical research."

Next up was Dr. Stephen Epstein, chief of the Cardiology Branch, NHLBI, who discussed the impact of federal ethics laws on NIH.

"These laws have seriously eroded our ability to attract and retain the best scientists," he said. "Junior and mid-level scientists are discouraged from



Bernadine Healy moderated the discussion between audience and panel during the second town meeting in Masur Auditorium.

coming here. Most have large debts when they come, but are willing to forego larger salaries for the opportunity to work at the premier medical institution in the world. One inducement in the past has been the ability to accept modest honoraria. Travel to small towns, where the doctors are hungry for the latest information, also used to be possible. The present law prohibits compensation for such activities. But these things are routine at academic institutions.

"Scientists here will still do these (extracurricular functions) without pay because it's crucial to science and improving health," he said. "But we are becoming second-class citizens. It disturbs me to see the impact on our junior and midlevel scientists. The honoraria ban strikes them as unfair and punitive—it doesn't exist in academia.

"We're not asking for special privileges," he concluded. "We just don't want to be treated as a penalized underclass."

Mikulski commented that Healy, as a federal worker, probably "lacks the managerial facility of the director of

Johns Hopkins." She then targeted Klausner: "What are some of the specific things that drive you crazy?"

Amid the laughter provoked by the question, Klausner shot back, "You're talking about work, right?"

The much-honored NICHD scientist reiterated that "bureaucracy's requirements are being served ahead of those of science" and called for a more flexible personnel system tailored to biomedicine.

Mikulski said the ban on honoraria first occurred in Congress as a way of stopping payoffs through the back door. As applied to NIH, the regulations were to act as a "firewall" preventing grantee institutions from rewarding, surreptitiously, the grant-givers.

Objected Epstein, "NIH already had rules in place to exclude the receipt of honoraria by granters from grantees. NIH is the only academic group that can't receive honoraria at scientific meetings."

Added Rosenberg, "Ninety-eight percent of the scientists at NIH don't do any granting at all, but are still caught in the ban."

Mikulski, a former social worker who demonstrated skill at getting to the crux of matters, asked, "What is consulting?"

Rosenberg said it sometimes comes in the form of collaborating with industry. Offered Epstein, "The supreme irony is that I can't go to Howard University or Harvard and give grand rounds, but I can go consult with a drug company. It's incongruous."

Snapped Mikulski, "It's more than incongruity. It just doesn't make sense."

NCI director Dr. Samuel Broder said NIH's great strength is that "it serves as a career development opportunity for young men and women to pursue careers in clinical investigation, to learn

(continued on p. 22)

(continued from p. 21)

the art form of taking basic research to the bedside. We need to attract those who still have fire in their belly to get things done. Later on in their careers, these investigators can take their insights outside NIH, but training remains our most important resource. I'm afraid, though, that we've created an atmosphere where that's difficult to do."

New recruits to NIH typically face debts of \$100,000 to \$120,000 from medical school, he said, a burden that "drives people out of clinical investigation. They can't endure the uncertainties involved with working here, so they go to private practice or industry."

Broder said the creative use of loan forgiveness options would be worth exploring, such as is done with AIDS investigators. He then offered the example of Dr. Eli Glatstein, chief of NCI's Radiation Oncology Branch, who is leaving NIH in February 1992 for an academic appointment in Dallas.

"Eli has trained seven department chairs in radiotherapy in the 15 years he has been with us," he said.

Glatstein's case underlines two issues—NIH's importance as a training center and its weakness when it comes to retaining excellent people.

In conclusion, Broder characterized training as "the stage of life when you recognize that things aren't impossible—that's when things can get done."

Rising from the audience, NIAID director Dr. Anthony S. Fauci told Mikulski that the loan forgiveness program for AIDS researchers is a major factor in recruitment and has been very successful. "If extended to the rest of NIH (research), I think it would have a major positive impact on scientists of all biomedical research disciplines," he said.

Dr. Lynn Gerber, who in addition to



Dr. Anthony S. Fauci rose from the audience to testify that a loan forgiveness program in AIDS research has been a major factor in attracting bright young scientists to NIH.

being chief of the Clinical Center's department of rehabilitation medicine also belongs to Klausner's task force, reported on the hospital's health.

"The Clinical Center is a living laboratory," she said. "It's often called the heart of the intramural program. It sets the tempo for intramural research at NIH. But we are severely constrained by our physical plant. Our flow hoods don't work properly, and the electrical system is poor. We're working in a failing heart."

Gerber admitted that a great staff has permitted the CC to do excellent work and gain accreditation, but said "even super people can't meet the severe challenges of space. We can't transfer biomedical specimens or mail down our hallways. A new hospital is needed. We need the flexibility to respond to initiatives, to be able to turn on a dime. Hiring is also a problem—we need to do it quickly, but can't. We don't have the opportunity to turn around good ideas and apply them in the clinic."

Turning more explicitly to campus infrastructure, Paul Horton, director of the Division of Space Management and acting director of the Office of Research Services, identified himself as

a "representative of the silent majority at NIH—I'm a Mr., not an M.D. or Ph.D. The doctors here may be the soldiers in the trenches, but we built those trenches, and those trenches are failing," he reported.

"Throughout the campus, the infrastructure is failing. We have played Russian roulette with our building systems in order to keep science going. We need a vision and strategic planning, which Dr. Healy is providing. We also need sustained and adequate funding. We're running out of room to house staff."

Observed Mikulski, "You're talking about a capital improvement budget that any mayor would have."

Last of the panelists to report was NIGMS director Dr. Ruth Kirschstein, whom Mikulski summoned with a friendly, "Dr. Ruth?"

A veteran of 36 years at NIH, half as an intramural scientist and half as an administrator, Kirschstein labeled the collaboration between intramural and extramural NIH "essential" and thanked the senator for her support of the Natcher Bldg., a structure to be built by the end of this decade that will house many administrators now occupying rental buildings in the area.

She then got to her point—funding for research training and fellowships is paramount, particularly since one-third of the next generation of scientists will be women and minorities.

"They need support, particularly in the early part of their careers," she stated. "We need to catch the curiosity of youngsters, and to assure stability for those who choose biomedical careers."

Their testimony completed, the panel then yielded the floor to members of the audience. Dr. Faye Calhoun, deputy chief for review in DRG's Referral and Review Branch and a 10-year NIH veteran, led off by asking

Mikulski, "What steps can we take to assure continued growth?"

"As we move to a peace dividend environment, we need to take weapons research money and apply it to medicine," said the senator. "Right now, more than 70 percent of the federal research dollar goes toward defense. I want to see a transition economy, where we reduce the amount spent on defense and move money to civilian research. By the end of this century, I would like to double the funding at NIH."

Repeating charges she made at the first town meeting, Dr. Margaret Jensvold said salaries and benefits aren't the only thing causing scientists to leave NIH: "Some scientists leave NIH because of being pushed out," she said.

"Sexual discrimination and retaliation are almost universal. Workplace harassment is common. NIH doesn't deal with it, and, in fact, contributes to it. We need more women in the top ranks at NIH. There needs to be intolerance of discrimination, and meritorious complaints (of harassment) should be settled rather than drawn out in court."

Jensvold asked Mikulski to support legislation extending the window for filing an EEO complaint from 90 to 180 days. "Harassment and discrimination are getting worse at NIH, not better," she concluded.

"I am committed to ending sexual harassment," Mikulski declared. "I happen to view sexual harassment as a term that's not adequate. It's more like tyranny and hostility."

Mikulski intends to cosponsor legislation streamlining the Equal Employment Opportunity Office. "I'm on (Sen.) John Glenn's wingtips every day about this," she said. She also intends to meet with Office of Personnel Management Director Constance Newman about adopting a federal tutorial on harassment that would precede a federal worker's employment. "We

need to deal with the problem at the front end, not clean up after." The senator also said she has taken concerns expressed to her by mail on this subject to both Healy and Mason.

"I assure you these events are repulsive to me," added Healy. "I plan to meet with SHER (the employee group self-help for equal rights) within the week."

Elaborating further on procurement difficulties, NCI's Dr. Bruce Chabner, director of the Division of Cancer Treatment, rose from the audience to complain that any purchase over \$25,000 requires that the government advertise and obtain three bids.

"Almost all the equipment we use in biomedical research costs this much," he said. "These hurdles are really creating a problem for intramural research." Mikulski said, "I would like very much to be able to help. But I also want to assure that the taxpayer gets a dollar's worth of research for a dollar's worth of taxes. Procurement is really a quagmire."

Thirty-year NIH veteran Dr. Zekin Shakhashiri, now retired, called for coordination of three important programs



Dr. Zekin Shakhashiri, a 30-year NIH veteran, makes his opinions known to the gathering during the open session.

at NIH—prevention, nutrition and technology transfer. In slightly fractured English, he urged Healy (whom he termed "the chief lady of the place") to "coordinate and integrate" various programs for the betterment of NIH.

The last questioner was Sumpter Embrey III, an NIH fire fighter who told Mikulski that the fire squad is overworked, underpaid and poorly quartered—the firehouse is almost 40 years old and can't hold the expensive equipment used to fight fires and answer emergencies.

"We have the same retention problems for the firemen as for the doctors," he said. "We need support from Congress to increase pay and reduce work hours." Firemen at NIH typically put in 72-hour weeks, said Embrey. Ninety-six hour weeks are not uncommon.

"I support a locality pay increase of 8 percent for all federal jobs," Mikulski told Embrey, to loud applause. "I will talk with Dr. Healy about these concerns."

At that point, Healy approached the diminutive senator with an honorary lab coat for her to take with her.

"I'm always nervous when doctors want to give me a white coat," joked Mikulski. "I'm an old social worker and I know what a white coat means," she said, rolling her eyes. "There she goes."

Wrapping up the session, Mikulski emphasized that "there can be no NIH without a strong, robust intramural program." She pledged to revisit the NIH reauthorization bill and said NIH could count on her to introduce legislation on recruitment/retention, loan forgiveness, prohibitions on honoraria, and infrastructure needs.

"I've learned a lot today about your needs and your willingness to do the job under tough circumstances," she said. "You are one set of excellent troops in the battle for our future, and I intend to work with you, including the 'chief lady of the NIH.'"

Man and Manometer

Van Slyke Exhibit Illuminates Soul of a Machine

By Rich McManus

A couple of eminent "Van Slickers" visited NIH Oct. 18, 1991, to help open the newest exhibit in the DeWitt Stetten, Jr. Museum of Medical Research at NIH.

Drs. Rollin D. Hotchkiss and Reginald Archibald, professors emeritus at Rockefeller University, participated in a seminar designed to explain the workings and significance of an odd piece of equipment known as a Van Slyke manometric apparatus.

Located under glass in the conference lounge area on the sixth floor of Bldg. 31C, the apparatus contributed mightily to both basic and clinical research between 1920 and 1960.

The apparatus, now supplanted by chromatography and spectroscopy, resembles some sort of glassblown hallucination from the set of a Frankenstein film. On top of that, it shimmies like a paint shaker at the press of a button.

Hotchkiss, a biochemist and geneticist best known for his DNA research, gave a history of the instrument he bequeathed to NIH after using it in research from 1925 to 1949.

"We used it for the microanalysis of blood gases," he reported. "It helped define an early class of antibiotics and was used to study such substances as urea, amino acids, glucose and cholesterol.

"Old and young people have survived better because of the Van Slyke machine," he concluded.

Why call it a "machine" rather than an instrument, queried Dr. Victoria Harden, who directs the museum and heads the NIH Historical Office? "Machine was an endearment," chortled Hotchkiss. "It means it's part of your family."

Archibald, a biochemist and pediatric endocrinologist, gave an overview of clinical applications to which the apparatus was put. A collaborator at Rockefeller with the instrument's inventor, Dr. Donald D. Van Slyke, Archibald noted that the Van Slyke machine helped scientists (known as Van Slickers) measure carbon dioxide concentration in blood, aided in diagnoses of diabetes and nephritis, and offered explicit quantitative measures of amino acids and other biological compounds. Van Slyke himself, reported Archibald, was tirelessly inventive and an eminent contributor to medicine, although he was not an M.D.

"Van Slyke didn't attend medical school, except as a teacher, but made great contributions to medicine nonetheless. He was a chemist who won the respect of clinicians," Archibald said.

The machine's inventor was editor of the *Journal of Biological Chemistry* from 1914 to 1924, and "his tenacious persistence wedded chemistry to medicine," Archibald noted. "(Van Slyke) unraveled mysteries of the blood, lung and kidney, revised the Army's chemical manual, masterminded the treatment of patients with oxygen, and improved our understanding of acid/base balance. He was also a remarkable teacher—many

full professors and department heads were either trained by him or by people whom he had trained."

Hotchkiss reported that the NIH museum's call for a Van Slyke apparatus reached him in Albany.

"I last used the machine at Rockefeller University in 1948 or '49," he said, "and then I let it sit around for a few years. Finally I put it up on top of a lab hood and promptly forgot about it while I went on with other work. When NIH called, I went back to Rockefeller and there it was. I cleaned it up a bit and here it is."

Among those who sat in on the seminar introducing the exhibit was NLM director Dr. Donald Lindberg, who had trained on the machine at Columbia during the waning days of its use.

Anyone wishing to see the exhibit, or who wants to know what the machine really did, may consult the Van Slyke manometer itself and an accompanying history brochure, written by exhibit curator Dennis Rodrigues.

"Whoever wrote that brochure really knows what this machine is all about," endorsed Archibald. "He can use my Van Slyke any time."



Setting up a projector for the seminar on the Van Slyke apparatus are (from l) Archibald, Hotchkiss, and exhibit curator Dennis Rodrigues of the NIH Historical Office.

NEI Emphasizes Testing for Blindness, Glaucoma Causes

NEI recently issued recommendations for the detection of two leading causes of blindness, glaucoma and diabetic eye disease, and warned that many Americans who are at high risk for these diseases are not seeking adequate eye care, based on findings from a new national survey.

NEI recommends people with diabetes should undergo an eye examination through dilated pupils at least once a year; and people at high risk for glaucoma, especially blacks over age 40 and all people over age 60, should receive an eye examination through dilated pupils every 2 years.

"Millions of people could be saved from vision loss, even blindness, by following these recommendations," said Dr. James Mason, HHS assistant secretary for health, who announced the recommendations. "There are 120,000 Americans currently blind from glaucoma alone. And about half of the 14 million Americans with diabetes will develop eye problems."

HHS also launched the National Eye Health Education Program—the first federally sponsored, nationwide eye health education program. NEI will coordinate the program, working with 37 private and public organizations.

At the news conference, a videotape was shown of HHS secretary Dr. Louis W. Sullivan having a dilated eye examination for glaucoma to help publicize the importance of early detection of this disease. Sullivan is at high risk for glaucoma, as are all blacks over 40. Blacks are five times more likely to develop glaucoma than whites and four times more likely to become blind from the disease.

"When one considers how dependent most Americans are on their



Dr. Carl Kupfer, NEI director, responds to media questions during the Dec. 12, 1991, press conference that launched the National Eye Health Education Program. In the background is Dr. James Mason, head of the Public Health Service.

vision," said Sullivan, "it is troubling that so many who are at risk for glaucoma either are not having their eyes examined, or are receiving inadequate testing."

NEI officials also released findings from a national survey conducted last year to determine the public's awareness of the facts about eye disorders and what constitutes proper eye care. The survey of 1,250 adults was co-sponsored by NEI and the Lions Clubs International.

The survey found that about three-fourths of the nearly 450 respondents at high risk for glaucoma said they were examined for the disease in the last 2 years. However, less than half of those tested said their pupils had been dilated during the examination, an essential part of effective glaucoma detection.

Glaucoma is a disease that occurs when the eye's fluid pressure rises, leading to progressive optic nerve

damage. If left untreated, glaucoma may lead to blindness.

Dr. Carl Kupfer, NEI director, said many Americans are screened for glaucoma with tonometry, a test that measures the pressure within the eye.

"Studies show that although tonometry is useful in detecting glaucoma, this test alone does not provide an eye care professional with enough information to diagnose the disease," he said. "People at high risk for glaucoma should have an eye examination through dilated pupils every 2 years, in addition to tonometry, to find glaucoma early, when it is most controllable."

Kupfer said complete glaucoma testing should include pupil dilation, where drops are placed into the eyes to allow a thorough examination of the retina and optic nerve for signs of damage; tonometry; and when indicated, a visual field test, which can detect early loss of peripheral vision.

About 3 million Americans have glaucoma, but almost half of them do not know it. The most common form is open-angle glaucoma, which is most prevalent in the general United States population over age 60 and blacks over age 40.

In addition, many of the country's 14 million people with diabetes are unaware that they are at risk for diabetes-related eye problems, and many are not obtaining regular eye examinations through dilated pupils, according to NEI.

For more information about glaucoma or diabetic eye disease, write: National Eye Health Education Program, Box 20/20, Bethesda, MD 20892.

NIH Notes for October 1991—January 1992

HONORS AND AWARDS

Dr. Peter Aplan, a biotechnology fellow in the laboratory of Dr. Ilan Kirsch in NCI's Pediatric Branch, was presented the 1991 Young Investigator Award by the American Society of Pediatric Hematology/Oncology. His award was for his research in the "successful identification of a new leukemogenic oncogene" ... **Gladys Atkinson**, NIH procurement official, has received from the National Business League of Montgomery County its Award of Excellence for her significant contribution to the minority business community ... **Ronald D. "Denny" Dobbin**, NIEHS program administrator, has been elected a fellow of the Collegium Ramazzini, an international organization that was created to study occupational and environmental health questions around the world ... **Dr. Michele R. Evans**, Clinical Center safety officer, recently won the Public Health Service Achievement Medal for directing efforts to meet the Joint Commission on Accreditation of Healthcare Organization standards on plant technology and safety management ... **Dr. Anthony S. Fauci**, director of NIAID, received an award from the American Foundation for AIDS Research in honor of his "extraordinary leadership and personal scientific contributions to the AIDS effort" ... **Dr. Michael Gottesman**, chief of NCI's Laboratory of Cell Biology in the Division of Cancer Biology, Diagnosis, and Centers, delivered, on Jan. 22, the NIH Lecture on "Molecular Analysis of Resistance to Anti-Cancer Drugs," which reviewed progress in understanding why tumors resist chemotherapy ... **Dr. Mark Hallett**, clinical director and chief of the Medical Neurology Branch, NINDS, was recently elected president of the American Association of Electrodiagnostic Medicine, which is the largest clinical neurophysiology association in the United States ... **Dr. Stephen I. Katz**, chief of the Dermatology Branch, NCI, received the 1991 American Academy of Dermatology Award for Excellence in Education on behalf of his branch. The award was presented in December at AAD's annual meeting ... **Dr. Werner H. Kirsten**, associate director of NCI's Frederick Cancer

Research and Development Center, recently received from the Leukemia Society of America its National Leadership Award. The award honors past or present members of the society's national board of trustees, on which he has served since 1986. He has been active in leadership roles with the society since 1976 ... **Dr. Richard Klausner**, chief of NICHD's Cell Biology and Metabolism Branch, was honored by several institutions around the country for his seminal contributions to cell biology and biochemistry. In October he delivered the three Lamport Lectures at Columbia. In November he gave the Fagan Memorial Lecture at Stanford as well as the Shannon Lecture. His lectures have summarized advances he has made in three separate areas of biology ... **Dr. Robert S. Langer**, an NIGMS grantee and Germeshausen professor at the Massachusetts Institute of Technology, recently became the first synthetic polymer chemist to be elected to the Institute of Medicine of the National Academy of Sciences ... **Dr. Lance Liotta**, chief of NCI's Laboratory of Pathology, has been named recipient of the 1991 Lila Gruber Memorial Cancer Research Award. The award, established in 1972 by Murray Gruber in memory of his wife, recognizes and supports cancer research. The award includes a cash prize of \$10,000. It was presented at the annual meeting of the American Academy of Dermatology in December ... **William "Cy" McGee**, an architect in the Facilities Engineering Branch, NIEHS, has been voted president-elect of the Triangle chapter of the Construction Specifications Institute—an organization of professionals in the construction industry including architects, engineers, specifiers, contractors, product manufacturers and property owners. He has been involved in the development and operations of the NIEHS campuses for many years ... **Dr. Louis H. Miller**, head of the malaria section of the Laboratory of Parasitic Diseases, NIAID, delivered the ICAAC Lecture at the 31st Inter-science Conference on Antimicrobial Agents and Chemotherapy, sponsored by the American Society for Microbiology, in Chicago. His talk on "The Eyes of the Hippopotamus," addressed how science today can develop tools to combat malaria ... **Dr. Philip A. Pizzo**, chief of NCI's Pediatric Branch, has been named one of two recipients of the 1991 Barbara Bohen Pfeifer Award for

Scientific Excellence. The award, which included a certificate and \$10,000, was presented on Dec. 8 by the American-Italian Foundation for Cancer Research ... **Dr. Judith L. Rapaport**, chief of NIMH's Child Psychiatry Branch, has received from the NIH Toastmasters Club its Communication Achievement Award ... **Dr. Steven A. Rosenberg**, chief of NCI's Surgery Branch, was presented in December with the 1991 Sheen Award. The \$25,000 award, named for the late Thomas G. Sheen, is presented annually "to further the study of medicine and the science of medicine and to compensate the doctor or doctors who have each year done something outstanding in the medical profession." He received the award and presented a lecture at the annual meeting of the New Jersey chapter of the American College of Surgeons ... **Corrine Vanchieri** of NCI was recently presented with the Rose Kushner Award for writing achievement in the field of breast cancer. Along with coauthor Miriam Adams of Adams Associates, she was recognized by the American Medical Writer's Association for the NCI brochure, "Women in the Workplace: The Challenge of Breast Cancer." The annual award is for outstanding medical writers who have made a significant contribution to the fight against breast cancer.

APPOINTMENTS AND PERSONNEL CHANGES

Dr. Donna J. Dean, chief of the biological sciences review section at DRG, has been appointed chair of the NIH Grants Associates Board for 1992. The board, which reports to Dr. George Galasso, NIH associate director for extramural affairs, is comprised of senior level NIH health scientist administrators who have broad experience within the Public Health Service and who are familiar with extramural research administration ... **Dr. Leon B. Ellwein** recently returned to NIH to join NEI as a consultant to the director. Before coming to NEI, he was professor and associate dean for research at the University of Nebraska Medical Center for 8 years, and for 11 years prior to that he was senior technical advisor at the Science Applications International Corporation. In 1966, he had served as a systems planning and analysis officer at NCI before leaving NIH in 1972 ... **Dr.**

Martin H. Goldrosen, a member of the staff at Roswell Park Cancer Institute, recently joined NCI as a scientific review administrator within the Grants Review Branch, Division of Extramural Activities ... **Dr. Dushanka Kleinman**, a researcher who has been investigating the epidemiology of oral mucosal tissue diseases and disorders, has been named deputy director of NIDR. She joined the institute in 1980 and has held management positions both as a researcher and an administrator within NIDR. "She is an accomplished researcher and administrator," said NIDR director Dr. Harald Löe. "Her experience on policy issues will be invaluable in furthering the goals of the institute. We are all pleased to have her as deputy director" ...



NIDCD director Dr. James B. Snow, Jr. (l) welcomes his new director of intramural research Dr. David J. Lim

... **Dr. David J. Lim**, a noted otolaryngologist, has been named the first director of the Division of Intramural Research for NIDCD. He comes from Ohio State University College of Medicine, where he was director of the otological research laboratories in the department of otolaryngology. In his new NIDCD position, he will oversee the institute's basic and clinical research programs, which currently consist of four branches and five laboratories. He will be responsible for directing a multidisciplinary program that encompasses hearing, balance, smell, taste, voice, speech and language, and for integrating new research activities into the division's structure. The division currently has a staff of approximately 62 employees and an annual budget of \$7 million ... **Dr. Robert R. Maronpot** has

been named chief of NIEHS' Experimental Toxicology Branch, which provides data to support the characterization of toxicological properties of important consumer, industrial, and environmental chemicals ... **Dr.**

Richard Pannier, assistant professor of oncology and biochemistry, University of Rochester, has been appointed scientific review administrator in the Division of Research Grants, where he will be responsible for the management of special study section Z, one of 101 review groups in DRG's Referral and Review Branch. These groups provide the first level of NIH's peer review system of awarding research and training grants ... **Michele Russell-**

Einhorn, an attorney, has been named to staff the permanent office at NIH for the HHS Special Counsel for Ethics. This office will be available to assist all NIH employees in dealing with important and complex issues such as outside activities, financial disclosures, and conflict of interest. **Gloria Frank**, also an attorney, will be working in the office on a temporary basis for the next several months ... **Gail Thorsen**, a professional traffic mitigator, has been named to head a recently established Employee Transportation Services Office in NIH's Division of Security Operations. Her job will concentrate not only on the parking problems, but also all the logistics involved with transportation at NIH ... **Dr. Kirt J.**

Vener has been named chief of NCI's prevention, epidemiology and control review section in the Grants Review Branch, Division of Extramural Activities. This review section provides NCI with peer review of program project applications and RFA submissions relevant to cancer, epidemiology and prevention. Before his appointment, he was a scientific review administrator with NIAMS ... **Dr. Nadarajan A. Vydelingum**, from the Memorial Sloan-Kettering Cancer Center and the Memorial Hospital for Cancer and Allied Diseases in New York City, is the new scientific review administrator of special study section 8 in DRG's Referral and Review Branch.

RETIREMENTS

Betty J. Beveridge, NIH committee management officer, retired recently after a long and varied career with NIH. She began working in the Division of Research Grants, and most of her NIH service was in the

Office of the Director. During her tenure, she saw the number of NIH chartered advisory committees climb from 133 to 192 and saw membership increase by 45 percent from 2,336 to 3,394, making them part of the largest public advisory committee system in the federal government. She was honored at a farewell reception where representatives from the General Services Administration (which has oversight responsibilities for all government chartered committees) commented that GSA "looks to NIH to set the standard," primarily because of her knowledge and skills. In addition to travel, her retirement plans include marriage to John Kelsey and a move to the Virginia suburbs ... **Dr. Arnold Brossi** of NIDDK's Laboratory of Structural Biology retired in October to join the faculty at Georgetown University and become NIH scientist emeritus. In his 40-year career, he contributed greatly to the development of new antimalarial drugs. He also researched and synthesized biologically active natural products that may prove useful in treating liver disorders, familial Mediterranean fever and Alzheimer's disease. He has won many honors during his distinguished career. During his tenure at NIH, he has directed the research of 41 postdoctoral fellows from 178 countries and published more than 360 scientific papers. He plans to continue his collaborations with several NIH researchers. He is also looking forward to having more time for his hobbies, which include mushroom collecting in the Alps and salmon fishing in Nova Scotia ... **Maj. Howard S. Davenport**, a 35-year veteran of NIH's police force, retired Jan. 3, having witnessed the maturation of NIH's Division of Security Operations from a security department to a professional police force. He has no firm after-retirement plans, but he intends to enjoy his leisure time ... **George S. Luhn**, inventory management specialist for the Supply Branch, Division of Logistics, retired recently after 44 years with NIH; his total federal service encompassed 48 years. He came to work at NIH in 1946 and began his career as a file clerk in Bldg. T-6. In 1951, he transferred to the Supply Unit and worked as a store worker in the sub-basement of Bldg. 1. "NIH is a wonderful place to work. To watch it grow and change over the years has been exciting," he said. In retirement, he is planning on traveling

(continued on p. 28)

(continued from p. 27)

with his wife, taking care of his lawn in Olney, and just relaxing ... **Dr. William C. Mohler**, associate director of DCRT, retired on Nov. 30. A retired PHS commissioned officer, he had administered DCRT programs and operations for more than 24 of the 34 years he was at NIH. He was involved with the NIH Information Resources Management Council and served as its executive secretary from 1985 to 1990. His professional life was dedicated to biomedical research and management at NIH. His retirement plans include spending time with his family and being involved in community work ... **Adele Nusbaum**, program analysis officer in the Division of Cancer Prevention and Control at NCI, has retired. She spent 17 of her 22 federal years at NIH. She directed NIH's first equal opportunity program and has watched the percentage of women at NIH increase from nearly 15 percent since 1971 to nearly 60 percent of the NIH workforce in 1988. Her post-retirement plans include consulting on some short-term projects and traveling to Thailand ... **Agnes Poole** retired Jan. 3 from the Division of Engineering Services north maintenance section after 45 years of federal service. The recipient of many awards, including her most recent excellent performance in 1990, she is "looking forward to retirement and sleeping late" ... **Vince Sabados**, a shop planner who took trouble calls and dispatched them to engineers in the Division of Engineering Services' north maintenance section, retired on Jan. 3 after 31 years at NIH. He plans to stay in the area, visit old friends in Pennsylvania often and do a lot of fishing ... **Dr. Daniel Seigel**, associate director for biometry and epidemiology at the National Eye Institute, retired Nov. 3 after 14 years with the institute. He has been responsible for providing statistical leadership to nationwide clinical trials and epidemiologic studies of eye disease. In retirement, he plans to move "down east" to Maine, where he will spend more time sailing, vegetable gardening, making ceramics, teaching English country dancing, and "shoveling snow." If time permits, he may collaborate in clinical research ... **Jean Stein**, administrative officer with NCI's Epidemiology and Biostatistics Program, retired Jan. 3, 1992, after more than 30 years in government service, 27 1/2 years at NIH. During her career at

NIH she saw many changes take place; one of the most striking is that the situation for women has improved since her early days. In 1972, she was a member of the first STRIDE class, enabling her to return to college and attain her bachelor's degree under the auspices of the federal government. She also participated in productions of the Hamsters and has performed with other local theatrical groups. She is looking forward to not getting up at 5:45 in the morning or packing a lunch ... **Jeanne Gravely Waggoner**, a chemist in the liver diseases section of NIDDK since its inception in 1973, retired recently after 34 years at NIH. She began her career as a chemist in NCI's Metabolism Branch in 1957, working with Dr. Nathaniel Berlin. She not only worked with many of the top scientists at NIH, but also trained scores of young scientists in laboratory techniques. Looking back, she is impressed with how much medical research has advanced during the past 30 years. She is looking forward to doing more gardening, reading and traveling. She hopes to go to Spain for the Olympics.

DEATHS

Genevieve H. Atterberry, 80, a retired budget analyst with NIH, died of heart ailments Sept. 26 at Suburban Hospital. About 1957, she went to work for NIH, and she retired in the early 1970's ... **Dr. Gerald Aurbach**, 64, chief since 1973 of the Metabolic Diseases Branch of what is now the National Institute of Diabetes, Digestive and Kidney Diseases, died of a head injury Nov. 4 in Charlottesville. He had been hit on the head by a stone thrown from a passing car. A suspect has been arrested. Aurbach was an internationally honored and renowned leader in the study of parathyroid disease; 30 years ago he isolated the parathyroid hormone—one of the major regulators of blood calcium. This accomplishment made possible numerous related basic and clinical studies that had enormous impact upon the lives of patients. He was elected to the National Academy of Sciences in 1986. He was also honored with the Gairdner Foundation International Award in 1983 and named Centennial Distinguished Alumnus by the University of Virginia in 1988 ...



Dr. Gerald D. Aurbach

... **Anne Barclay Barahona**, 31, a computer researcher who had worked at NIH, died Dec. 24 at Washington Adventist Hospital. She had hepatitis. In the late 1980's, she worked as a researcher with NIH ... **Dr. Benjamin D. Blood**, 77, a veterinarian and public health officer, died Jan. 20 after a heart attack. He was the retired executive director of NIH's inter-agency primate steering committee, where he worked on securing nonhuman primates for scientific research. He was also active in primate conservation work. After he retired from NIH and PHS in 1979, he worked as a consultant for several years to the World Health Organization ... **Dr. Donald S. "Mike" Boomer**, 71, a research psychologist at NIMH who, in 1977, became director of the Treatment Center of the Washington School of Psychiatry, died of heart ailments Dec. 19 at the Clinica Union Medica in San Miguel de Allende, Mexico. He had moved to Mexico after he retired from his practice in 1990. He joined NIMH in 1954 and remained there until 1977 when he joined the Washington School of Psychiatry. He retired from there in 1985. He was a specialist in psycholinguistics ... **Dr. John Francis Brennan, Jr.**, 33, an oncologist who supervised cancer treatment studies at the National Cancer Institute, died of complication of AIDS Oct. 28 at his home in Washington. He came to NCI in 1987 as a fellow in medical oncology and

joined the staff as a senior clinical investigator in 1990 ... **Louretta B. Doherty**, 83, a retired employee at NIH, died of heart ailments Jan. 1 at Washington Hospital Center. In 1959, she went to work at the NHI where she was administrative assistant to the director of extramural programs until she retired in 1978... **Loye L. Downey**, 78, a secretary at NIH from 1944 to 1975, died of cancer Oct. 31 at Fernwood House nursing home in Rockville ... **Dr. John D. Douros, Jr.**, 60, a bacteriologist who from 1972 until 1982 was chief of natural products and drug development at NCI, died of chronic lymphocytic leukemia Nov. 12 at the North Carolina Baptist Hospital in Winston-Salem, N.C., where he had retired. Before joining NCI, he worked for several pharmaceutical companies and after he left NCI he joined Bristol-Myers. He retired in 1989 as vice president of drug licensing. He held more than 50 patents related to drugs for cancer treatments ... **Dr. DeWitt S. Goodman**, 61, died Nov. 4 of a pulmonary embolism at Columbia-Presbyterian Medical Center in Manhattan. He was Tilden-Wegen-Bieler professor of preventive medicine at Columbia and director of the university's Specialized Center for Research in Arteriosclerosis and of its Institute of Human Nutrition. He was also president of the New York chapter of the American Heart Association. He had been at NIH in 1956-58 and 1960-62 in the Laboratory of Metabolism Investigation at the NHI ... **Dr. Russel J. Hilmo**, 70, former associate director of the NIGMS Cellular and Molecular Basis of Disease Program, died Nov. 23 following an extended illness. He retired in early 1977 after having spent 32 years in federal service, 28 of them at NIH. In 1948, he joined the NIAMD as an intramural scientist. His research focused on nucleic acid biochemistry. He began working at NIGMS in 1964. Following his retirement he became executive officer of the American Society of Biochemistry and Molecular Biology. From 1980 to 1982, he worked at the National Academy of Sciences as staff officer of the committee on human resources of the National Research Council. During the past several years, he worked as a consultant in science administration ... **Ada B. Murphy**, 94, died of pneumonia Oct. 25 in Hyattsville at the Sacred Heart nursing home. In 1941, she joined the Public Health Service, where she worked on tuberculosis

surveys. She later transferred to NIH and retired in 1965 as a lab technician ...

Lawrence A. Sator, 68, a retired employee of NIMH, died of cancer Nov. 23 at the Fox Chase nursing home in Silver Spring. He was an engineering technician with NIMH for 11 years before retiring in 1977. In that position, he helped build and repair technical equipment... **Dr. William M. Taylor**, 71, an experimental and physiological psychologist who was a retired health scientist administrator at NIH, died of complications from strokes Dec. 7 at the Potomac Valley Nursing and Wellness Center in Rockville. He retired in 1985 after 20 years with NIGMS, where he developed training programs in behavioral sciences. He was a former executive secretary of NIH's behavior sciences training committee ... **Dr. Mary Ford Waldrop**, 78, a retired child development researcher at NIH, died Nov. 19 at Seton Hospital in Austin, Tex., where she was visiting her daughter. She had myasthenia gravis. She began her career at NIH in 1962, and conducted a long-term research project on inherited behavior as identified by physical anomalies until her retirement in 1985. She had also organized a nursery school at the White House for the children of President John F. Kennedy.

The National Heart, Lung and
Blood Institute
Announces a Conference in Honor of
Marshall Nirenberg
"Genes and Development:
Twenty-Five Years After
Deciphering the Genetic Code"

May 7 and 8, 1992, in the Masur
Auditorium, Bldg. 10. Preregistration
by April 15, 1992, is required.

Guest speakers will include:

W. French Anderson	David Baltimore
Paul Berg	Mario Capecchi
C. Thomas Caskey	Pierre Chambon
Ronald Evans	Walter Gehring
Peter Greuss	Thomas Maniatis
Steven McKnight	Beatrice Mintz
Robert Roeder	Michael Rosenfeld
Matthew Scott	Robert Tjian
Harold Weintraub	

For information call (301) 468-6338

Book Briefs

Publications of Interest To NIHAA Members

Emil J. Freireich and Noreen A. Lemak. *Milestones in Leukemia Research and Therapy*. Baltimore: Johns Hopkins Univ. Press, 1991. xi; 260 pp.; illus.; index. \$60.

Dr. Emil J. Freireich, the Ruth Harriet Ainsworth Professor of Developmental Therapeutics, and Dr. Noreen A. Lemak, a research associate with him in the department of hematology at the University of Texas M.D. Anderson Cancer Center, have written a comprehensive history of leukemia since the first reported case in 1827 to the present. It is a work that will be of interest not only to physicians and researchers in the field, but also to historians of medicine.

Elizabeth Moot O'Hern. *Profiles of Pioneer Women Scientists*. Washington, D.C.: Acropolis Books, Ltd., 1986. 264 pp.; illus.; index. \$18.95.

This book by Dr. Elizabeth M. O'Hern, a retired NIH health administrator and microbiologist, profiles the lives and scientific achievements of 20 women microbiologists over the last 150 years. Chapters X-XV are on 6 women scientists—Ida A. Bengtson, Alice C. Evans, Sara E. Branham, Bernice E. Eddy, Sarah E. Stewart and Margaret Pittman—all of whom were at NIH.

Solomon H. Snyder. *Brainstorming*. Cambridge: Harvard Univ. Press, 1989. 208 pp.; illus.; index. \$22.50.

Dr. Solomon H. Snyder, who is director of the department of neuroscience at the Johns Hopkins School of Medicine, has written a book that not only details the scientific nature of his discoveries in opiate research, but also the political aspects and realities that were involved in it.

NIH Retrospectives



Winter 1952

A pure form of vitamin B6 has been produced synthetically for the first time by Drs. Elbert A. Peterson, Herbert A. Sober, and Alton Meister of NCI's Laboratory of Biochemistry ... The Hamsters have come out of hibernation and presented their third annual production, "Twice Upon A Time," written by Zelda Schiffman and Phil Janus; directed by Rosalie Kasaba; choreographed by Hazel Rea and Rose Wolitsky; and produced by Jack Beecher. It was a big hit ... Dr. George McCoy, Director of the Hygienic Laboratory for 22 years, died of a heart attack Apr. 2, 1952, in Washington, D.C.



Winter 1962

Dr. Sara E. Branham, 74, a pioneer in the field of biologic research, died at her home in Washington, D.C., on Nov. 16, 1962. She had retired from NIH in 1958 after more than 30 years of government service ... Building 31 was recently awarded the Oliver Owen Kuhn Cup for 1961 by the Bethesda-Chevy Chase Chamber of Commerce. The award is given annually to the group or person contributing the most toward making Bethesda-Chevy Chase a better place in which to live. The first cup was awarded posthumously in 1938 to Luke I. Wilson for donating the original

tract of land on which NIH is located ... Dr. Thelma B. Dunn, head of the cancer induction and pathogenesis section of the Laboratory of Pathology, NCI, was selected as one of six recipients of the second annual Federal Woman's Award.



Winter 1972

The NIH in February announced that it will assist in the implementation of a new agreement between the United States and Soviet Union to expand collaboration in the study of cancer, heart disease, and environmental problems ... A "Turn Off the Lights" campaign has been started at NIH not only to save

nearly \$100,000 in operating costs, but to save energy as well.



Winter 1982

Dr. David B. Scott, director of the National Institute of Dental Research since 1976 and Assistant Surgeon General in the U.S. Public Health Service, retired Dec. 31 after 27 years of service in NIDR ... On Jan. 17, 1982, the wind-chill factor was -44 °F, which was the coldest day in 50 years and it occurred in the middle of the worst snow to hit the area in years. On Mar. 2, 1982, Dr. James B. Wyngaarden, chairman of the department of medicine, Duke University, was nominated by President Reagan to be new NIH director.



Norman Gettings, who was in the Division of Research Services, identified the painter in last issue's photograph as Edward Emory, who was foreman of the paint shop. He remembers that Emory painted the flagpole three times. Above is another photo about which National Library of Medicine prints and photograph curator Lucinda Keister needs information. It is a photo of an NCI laboratory taken in 1944 by Roy Perry. Does anyone remember the names of all the people in the photo? Please send information to *Update*.

BALLOT**NATIONAL INSTITUTES OF HEALTH ALUMNI ASSOCIATION****PLEASE TEAR OUT AND RETURN WITH YOUR VOTE**

In accordance with the bylaws of the NIHAA, alumni members of the association are to elect one-third of the board of the association. The nominating committee, appointed by President Joe Held, has nominated the alumni members listed below, each of whom has agreed to serve on the board of directors if elected. Each alumni member may vote for nine (9) of the nominees. Please note that associate members (current NIH employees) are not eligible to vote in this election.

NOMINEES FOR THE NIHAA BOARD OF DIRECTORS

Please vote for up to 9 (nine) of the nominees and return your ballot to the NIHAA office, 9101 Old Georgetown Rd., Bethesda, MD 20814 by April 15, 1992.

- ☐ **Dr. William R. Carroll**—Scientist, Director, Laboratory of Physical Biochemistry, NIAMD, now retired.
- ☐ **Dr. Peter Condliffe**—Chief of Scholars-in Residence Branch, Fogarty International Center, now Scientist Emeritus, Laboratory of Cellular and Developmental Biology, NIDDK.
- ☐ **Dr. Marguerite W. Coomes**—Staff fellow, Laboratory of Pharmacology, NIEHS, now professor of biochemistry and molecular biology, Howard University College of Medicine.
- ☐ **Dr. Gio Gori**—Deputy Director, Division of Cancer Cause & Prevention, NCI, now Director of Health Policy Center.
- ☐ **Mr. Joseph Keyes, Jr.**—Legislative Analyst, Office of Program Planning and Evaluation, OD, NIH, now vice president for institutional planning and development & general counsel, American Association of Medical Colleges.
- ☐ **Ms. Marjorie Melton**—Parasitologist, Laboratory of Parasitic Diseases, NIAID, now retired.
- ☐ **Dr. Paul Parkman**—Deputy Director, Division of Virology, DBS; Director, Center for Biologics Evaluation & Research, FDA, now a consultant.
- ☐ **Dr. Joseph Perpich**—Associate Director for Program Planning & Evaluation, OD, NIH, now vice president, grants & special programs, Howard Hughes Medical Institute.
- ☐ **Dr. Paul Peterson**—Associate Director, NIAID, now retired.
- ☐ **Dr. Milton Puziss**—Chief, Bacteriology & Virology Branch, Extramural Programs, NIAID, now retired.
- ☐ **Dr. Marvin Schneiderman**—Associate Director for Science Policy, NCI, now on the staff of the National Research Council, National Academy of Sciences.
- ☐ **Dr. Emma Shelton**—Research Biologist, Laboratory of Biochemistry, NCI, now retired.
- ☐ **Ms. Susanne Stoiber**—Senior advisor to the deputy director for science and executive officer of the Clinical Center, now director of social and economic studies, Commission on Behavioral Science and Education, National Academy of Sciences.
- ☐ **Dr. John Utz**—Chief, Infectious Disease Service, NIAID, now professor of medicine, Georgetown U. (formerly dean of the School of Medicine).
- ☐ **Mr. Storm Whaley**—Associate Director for Communications, OD, NIH, now retired (see story in next *Update*).



If You Are Not Yet A Member of The NIHAA [Clip and mail]

NIHAA Office
9101 Old Georgetown Rd.
Bethesda, MD 20814

I would like to apply for membership in the NIH Alumni Association. My NIH position:

(Title) (Organization)
from _____ to _____ My membership dues of \$ _____
(Years)

are enclosed payable to FAES/NIHAA.

(Please type or print)

Full Name:

Title:

Place of Employment if applicable:

Mailing Address:

City, State and Zip Code:

Telephone:

If you are in Baltimore for the AAP/ASCI/AFCR meetings, please attend the NIHAA reception on Saturday, May 2, 1992, from 6 to 7:30 p. m. in the Lombard/Camden Room, Hyatt Regency Hotel, Inner Harbor. Past, present NIH staff, NIHAA members and guests are all invited.

Memberships

Please indicate membership desired:

Type	Annual Dues
Alumni (for past NIH employees only)	\$25.00
Associate (for current NIH employees)	\$25.00
Friend (for individuals interested in NIHAA's goals)	\$25.00
Life	\$250.00

Please indicate amount here

\$ _____

NIH Alumni are people who have worked or studied at NIH. Present NIH staff are invited to join as associate members.

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In the Open

Intramural Women Scientists Speak Out on Status at NIH

By Carla Garnett

For some in the group of six women researchers scheduled to speak at the recent panel discussion on the status of intramural women scientists, the podium in the packed Lipsett Amphitheater seemed peculiarly unfamiliar.

Although most were accustomed to giving presentations before large groups, this time was different. This time there were fewer concrete facts from which to draw conclusions than in a routine scientific presentation. This time the discussion would be personal as well as professional. In addition, it would involve a most basic topic—the differences between the male and female scientists and how their careers advance at NIH.

(See *Women* p. 22)

NIHAA Members Invited To Alumni Symposium

On Sept. 21, the National Institute of Allergy and Infectious Diseases will sponsor the Alumni Symposium on "Immunology and Infectious Diseases" as part of the 1992 NIH Research Festival. The symposium will be hosted by Dr. Anthony S. Fauci, NIAID director, and Dr. John I. Gallin, director of NIAID's Division of Intramural Research. They have written the following note to NIHAA members:

"This year we wanted to honor an alumnus whose career has had a broad impact on NIH and on the general field of immunology and infectious diseases. From a huge group of qualified alumni we selected Dr. Sheldon M. Wolff as the NIH/NIAID 1992 Distinguished

(See *Symposium* p. 8)



Participants (seated, from l) Drs. Lynn Gerber, Judith Rapaport, Susan Swedo, M.A. Ruda, Mary Ann Robinson, Joan Schwartz and (standing) Monique Dubois-Dalcq discussed tenure, promotion and sexual discrimination at intramural NIH during a public meeting.

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Anderson Details Therapy Progress at NIHAA Meeting

Dr. W. French Anderson, chief of the Molecular Hematology Branch, NHLBI, highlighted the Mar. 21 annual meeting of the NIH Alumni Association with an exciting account of recent progress in human gene therapy research. Describing clinical gene marker and gene therapy protocols in progress on three continents, Anderson stated, "It is an extraordinary explosion in research across the world." He described therapy for the genetic disease adenosine deaminase (ADA) deficiency, and for malignant melanoma—conducted with colleagues from NIH—and noted further potential uses for patients with cardiovascular, blood, pulmonary, viral, liver, and central nervous system diseases.

(See *Anderson* p. 2)

Anderson (continued from p. 1)

Gene therapy "is a therapeutic technique in which a functional gene is inserted into the somatic cells of a patient to correct an inborn genetic error or to provide a new function to the cell," said Anderson. "We really didn't think of the latter at first," he mentioned, saying that it could turn out to be a major use, something similar to a drug delivery system.

What makes gene therapy exciting? "In theory, one should be able to use gene therapy as preventive medicine," said Anderson. For example, if you know a gene defect that leads to breast cancer, you may be able to correct the defect and prevent breast cancer.

The first human gene therapy study put a gene for neomycin resistance into tumor infiltrating lymphocytes (TIL cells) as a marker in a study of immunotherapy for malignant melanoma. In simple terms, a virus vector is used. That is, you start with a virus; then you hollow it out and put in the new gene. The virus doesn't know that, and puts the new gene into the target cell. It is a one-way delivery system—there is no risk of virus infection. In this study, melanoma patients were being treated with TIL cells and the T cell growth factor, interleukin-2 (IL-2). The marker allowed the investigators to track the experimentally injected TIL cells, to help them understand whether and how the TIL cells worked. Pictures of TIL + IL-2 therapy demonstrated one very dramatic response in a 29-year-old woman with advanced metastatic melanoma, studied by a joint NCI-NHLBI team. More than a year later, she still is in complete remission. Other cancer studies aim to use gene therapy principles to put a high concentration of a "suicide gene" into brain cancer, ovarian cancer, or other cancers, while avoiding or minimizing the concentration in normal cells.



Dr. W. French Anderson, chief of NHLBI's Molecular Hematology Branch, describes recent progress in human gene therapy to the NIHAA audience.

Adenosine deaminase (ADA) deficiency generally leads to death from infection before age 2. "What really drives this field is the sick kids," declared Anderson. "The constant reinforcement of going on rounds and seeing the sick kids, or seeing the people with cancer, is what motivates us. We postulated that cured cells should have a selective growth advantage and, in fact, that is exactly what has happened.

"First, we did a T cell correction," which corrected the ADA deficiency for the life of the cells that hold the gene. Polymerase chain reaction analysis showed these cells to have a half life of about 3 to 5 months. "The corrected cells live about five times longer than uncorrected cells," said Anderson. Photographs of a child before and after therapy provided dramatic proof of the amazing benefits that sometimes can be achieved. "We have approval now to go in with stem cells, which we hope will be a cure. First we did a T cell correction. Now we want to do a bone marrow correction."

What does Anderson see for the future? Current research aims for 1)

injectable targetable vectors; 2) site-specific integration; and 3) regulation by physiological signals. However, cautions Anderson, "in order for gene therapy to fulfill its promise, it must become low-cost, low-tech—something any doctor can do. All we can do now is basically turn the gene on or off. We need to be able to regulate the gene."

What are Anderson's main concerns? "The old face of eugenics and mischievous experimentation becomes a real issue. A line has to be drawn that says gene therapy can be used for treatment and prevention of disease, but not for any other purpose. It needs to be carefully overseen. I'm for public education to improve chances of using it rather than abusing it."

Anderson concluded by saying, "Germ line alteration (rather than somatic cells) is the next ethical debate. My view is that it would be ethical for treatment of disease, but not until we have a great deal more experience with somatic cells. Since the gene pool belongs to all of us, people should be educated and know about this in advance, and take part in the decision."

Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814, (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or suggestions, please drop a note to the editor. We reserve the right to edit materials.

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NIHAA Update is supported by grants from Glaxo Inc., Sandoz Research Institute and the Upjohn Company.

A 5-Year Project

Natcher Bldg. Plans Move Forward in Two Phases

Planning for the William H. Natcher Bldg., in progress for more than 4 years, is coming to fruition as NIH has targeted groundbreaking for phase I of the new office complex in September. Completion of the phase II complex would result by 1997 in new quarters for a total of about 3,000 NIH'ers currently occupying rental buildings in the area.

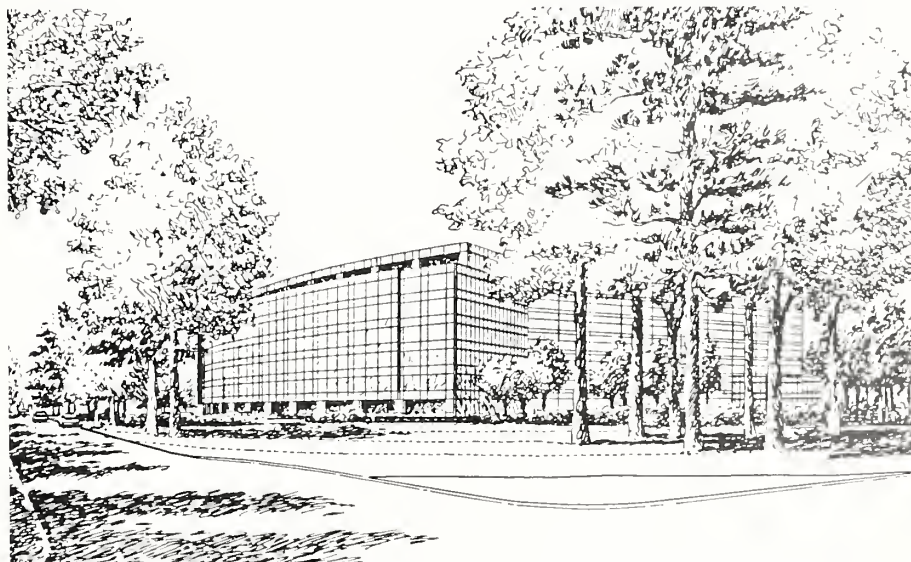
Originally known as the Consolidated Office Bldg., the project was designed to bring NIH extramural staff together on campus and to vacate off-campus real estate that is leased to NIH. On Feb. 7, NIH director Dr. Bernadine Healy and the ICD directors settled on a design that encompasses some 720,000 gross square feet of space on a site bounded roughly by Center Dr., Rockville Pike, and the Lawton Chiles International House (Stone House). Three weeks later, Healy presented architect's drawings of the facil-

ity to its namesake, Rep. William H. Natcher (D-Ky.), a long-time friend of NIH and chairman of the House appropriations subcommittee charged with NIH oversight.

Back in 1988, the Division of Engineering Services (DES) at NIH completed a "program of requirements" for the structure. An environmental assessment conducted at the time identified two major issues that have required analysis—the impact of increased commuter traffic on Bethesda and the effect of a large new building on Stone House, a mansion whose Greek Revival architecture is of historical interest.

Last August, Healy approved an amendment to the program that added a 1,000-seat auditorium, a requirement that the building present a "gateway" entry to NIH that would be compatible with the adjoining Stone House and National Library of Medicine, and a two-phase plan for construction.

(See Natcher p. 4)



View from the corner of Rockville Pike and Center Dr. looking northwest at the proposed new William H. Natcher Bldg. Groundbreaking is expected by fall on the first phase of the project.

Natcher (continued from p. 3)

The DES is coordinating design and construction of the \$176 million facility, \$73.3 million of which is already appropriated. The first phase will include office space for about 600 people, a 1,000-seat auditorium and con-

William H. Natcher Bldg. Schedule

Environmental Assessment and Environmental Impact Statement Initiated	November 1991
Building Design Initiated	November 1991
Environmental Assessment Completed	March 1992
Groundbreaking and Begin Phase I Construction	September 1992
Environmental Impact Statement Completed	December 1993
Begin Phase II Construction	May 1994
Completion of Phase I	August 1994
Completion of Phase II	January 1997

ference center, and a corresponding food service facility.

In phase I, parking for 450 cars will be included in several underground levels with surface parking for an additional 100 cars; the office building will be six or seven stories tall. This phase

is scheduled for completion in August 1994.

Although various options are still being considered, phase II should begin in May 1994 including underground parking for 1,350 more cars, office space for some 2,400 people, an expanded cafeteria, a fitness center, credit union, R&W, self-service store, travel agency and employee health unit. All offices with computers will be connected via LAN—local area network. Occupancy is anticipated to begin in January 1997.

"We haven't yet resolved the exterior finishes but the tone will be light in order to complement the NLM across the street," said Clyde Messerly, DES project officer. The rear of the building, which will face Stone House, will include horizontal bands of glass.

Additionally, a skylit atrium will cover a common area connecting the office towers, auditorium and food service. In all, the design maintains the park-like setting between the structure and the Metro station and Stone House to the north.

On Mar. 16, NIH hosted a "scoping session" at which the public was invited to offer comments concerning envi-

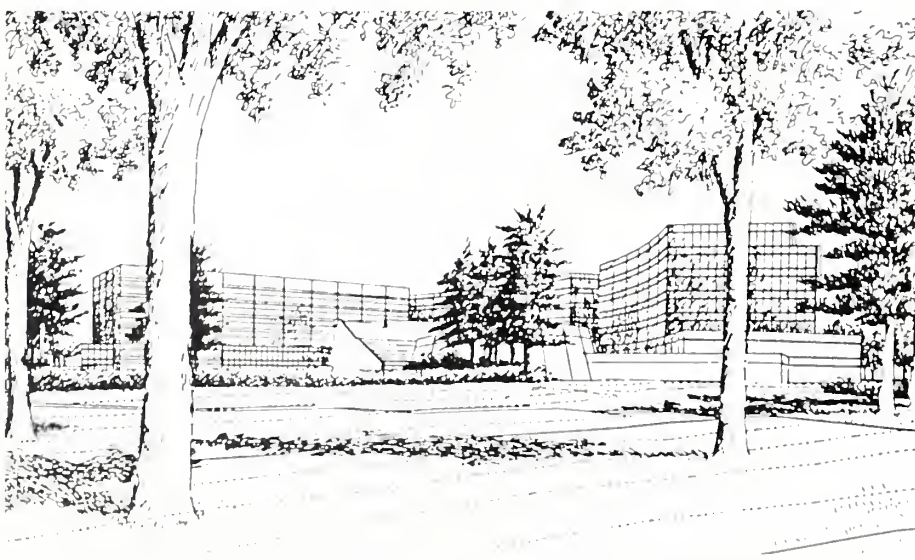
ronmental issues of the phase II plan. Held at Walter Johnson High School in Bethesda, the session acquainted neighbors with the proposed consolidation of NIH staff and the environmental impact statement process. This process, which will take 2 years, must be completed prior to construction of the larger phase II portion of the project.

An archaeological impact study on the site was completed in order to proceed with construction. NIH also had to create a traffic mitigation plan that takes into account the impact of additional cars on campus. NIH also had to consult with the Maryland Historical Trust about preserving the integrity of Stone House.

The Stone House, built in 1931 by George Freeland Peter, is considered a prime example of estate architecture, and is eligible for the National Register of Historic Places. NIH acquired the home in 1949; it was renamed for Sen. Lawton Chiles (now governor of Florida) last year. "We will use some stone on the building's terrace to reflect the stone used in the Lawton Chiles House," reports Jorge Urrutia, DES director. "We will also do some landscaping to complement the mansion."

At least half of the occupants of the Natcher Bldg. will be extramural staff. The 600 tenants who will occupy the phase I building come from the Westwood Bldg. Occupancy for the second phase has not yet been determined. Bidding for phase I construction on the building was scheduled for May, following consideration of an environmental assessment that is nearing completion.

If you did not receive issues of NIHAA Update and would like a copy, please notify the editor at 9101 Old Georgetown Rd., Bethesda, MD 20814.



View from the Lawton Chiles International House (Stone House) looking southeast toward rear of Natcher Bldg.

Dean of OD Staff**NIH Communications Chief Storm Whaley Retires***By Rich McManus*

Storm Whaley, NIH associate director for communications for five NIH directors and four acting directors since his arrival in July 1970, retired Feb. 3. Several hundred NIH'ers, among them a handful of past directors, turned out to bid him farewell at a reception Jan. 29 in Wilson Hall. "To say that you know Storm Whaley is to join a very privileged group," said Dr. Bernadine Healy, NIH director. "He embodies so much that is right and gentle about us. He is the communicator par excellence."

Healy praised Whaley as a gifted part-time painter, a prodigy at mathematics, a writer, singer, radio announcer, pilot and ground instructor. But most of all, she said, "Storm Whaley knows how to be your friend. He has been of inestimable value to me. I trusted his calm, confident advice and appreciated his clarity of view. He is an absolutely first-rate man and intellect. I'm happy I was able to get to know this extraordinary man who gave so much to NIH."

Added Healy's predecessor, Dr. James B. Wyngaarden, "When I came to NIH as director 10 years ago, I was immediately impressed by the quality of the staff, and one of the gems was Storm Whaley."

Admitting that it was difficult to speak in front of a crowd without a Whaley-crafted speech in front of him, Wyngaarden praised Storm's "marvelous touch with words."

Though Whaley came to NIH with media experience and remained in close contact with the press corps, Wyngaarden said, "He never became one of them. Their motto is 'If you can't think of anything nice to say, let's



Joining Storm Whaley at the reception on Jan. 29 in Wilson Hall were (from l) former NIH director Dr. James Wyngaarden, current director Dr. Bernadine Healy, and former acting director and deputy director Dr. William Raub.

hear it.'" Demonstrating that he had learned something of the Whaley wit through years of collaboration on hundreds of speeches, Wyngaarden remarked, "I heard that Storm was retiring to Arkansas to paint flowers (a reference to Gennifer Flowers, alleged mistress of presidential candidate Bill Clinton)."

Currently the foreign secretary of the National Academy of Sciences, Wyngaarden, an avid art collector, said he was a great admirer of Whaley's paintings. "They show his many qualities of creativity and curiosity."

Dr. Thomas Malone, former NIH deputy director and acting director, arrived in Bldg. 1 about the same time as Whaley; the two became lasting friends. "I once proposed that we collaborate on a masterful book on the history of NIH. Storm Whaley said it couldn't be published until we both left the planet."

Malone lauded his friend's writing skill, in particular. "He always embell-

ished his writing with deep knowledge of history, art and literature. In crafting speeches for the directors and deputies, he showed uncommon talent and forbearance. It's remarkable that he maintained his sanity through all this, and that he loved it."

Dr. William Raub, who was acting NIH director for almost 2 years before the arrival of Healy, said Whaley stood for "intellect, dignity and class. More than anything else, he evoked in me the feeling of being my friend."

"The second thing he evoked is 4:45 p.m. on a Friday. That's when he would appear in my doorway with a sly smile and say, 'I think we're in trouble again.' There is no one I wanted and needed more at these times than Storm."

Raub, who with Whaley helped form the NIH Supramural Singers years ago, then led the vocalists in a rousing rendition of "Storm, Storm

(See Whaley p. 6)

Whaley (continued from p. 5)

He's The One," sung to the tune of "Home on the Range." It's last verse read: "Storm, Storm you're the one. You really stand out from the rest. When the news has bad facets, you just cover our assets, you're better than good, you're the best."



A common scene on the third floor of Bldg. 1 in the past 10 years has been a conference between Whaley and his closest assistant, R. Anne Thomas, director of the Division of Public Information and, now, acting NIH associate director for communications.

The last speaker at the reception was Whaley's right-hand colleague for the past decade, R. Anne Thomas, director of the Division of Public Information, who will now be acting NIH associate director for communications.

"You set our high standards for service to the public and the media," she said. "You did it by setting an example and tone to emulate. You are our rock, our support, our friend and our book of knowledge. No one will miss you more than I."

With his wife Jane at his side, Whaley said, "It has been an enormous privilege to work with the extraordinary people who are NIH. It's wonderful to work with you. When Dr. Healy arrived, she congratulated me on the quality of the staff in the Office of Communications. I'm extremely proud

of that. I'm also proud of the information officers at NIH, and their talent, energy and ingenuity."

He recounted highlights of his associations at NIH, ranging from anecdotes about directors to fond recollections of his two most cherished ad hoc memberships—the "Lunch Bunch" that met twice a week for years, and the "Kitchen Cabinet" that breakfasted almost daily in the Bldg. I cafeteria and whose membership spanned all levels of NIH. "The organizations I belonged to seemed to have meals in them," he quipped.

Storm Hammond Whaley was born Mar. 15, 1916, in Sulphur Springs, Ark. He graduated in 1935 from John Brown University in Siloam Springs, Ark., with a B.S. in mathematics.

While an undergraduate, he worked as a radio announcer for the station in town, KUOA. The year he graduated, the Brown organization, which owned the university, bought the radio station and named Whaley manager.

"There were five of us on the staff—two engineers and three announcers. We did everything from writing the news to selling advertisements."

Whaley's voice, still a soothing bass, was a natural for radio and also helped gain him a spot in the local barber shop quartet, the "Ozarkians."

The Brown organization later bought radio stations in Long Beach, Calif., and Tulsa, Okla. Whaley became general manager of the burgeoning media empire, though he remained in Arkansas.

In his home state, Whaley proved an ambitious reporter, covering not only local politics but also ranging as far away as San Francisco, where he covered the convention that organized the United Nations. In 1946 he would cover the first General Assembly of the United Nations in New York. "We did some pretty wild things for a station

our size," he recalls.

Whaley also covered the national political conventions in 1940, '44, '48, and '52. He gave the speech nominating Sen. J.W. Fulbright for president in 1952, and had written news stories for Fulbright-owned papers in Arkansas.

After 18 years in radio, Whaley "felt it was time to let the new generation take over," and resigned from his general managership. He left to join the staff of Rep. J.W. Trimble of Arkansas as administrative assistant.

"In the course of my radio career, I became greatly interested in the political scene—the news led me into it," he said.

When Trimble offered him the job in Washington, Whaley was also offered a position as assistant to the president of the University of Arkansas. That job was held open for him while he gained experience with Trimble.

Back home in 1954, Whaley joined the University of Arkansas at the behest of its president, John Tyler Caldwell, whom Whaley had met and impressed during his journalism career. As Caldwell's "legislative liaison," Whaley was to help move and shake on behalf of the university at sessions of the state legislature in Little Rock.

In addition to being the state capitol, Little Rock was home to the university's fledgling medical center, whose expenditures of state funds were a concern to the governor. Among his other duties, Whaley was expected to smooth feathers in the state house.

In the summer of 1959, while he was on vacation, President Caldwell decided to leave the University of Arkansas to become chancellor at North Carolina State University. Caldwell's deputy, unbeknownst to Caldwell, accepted a vice presidency at Boston University.

"Neither one told the other of his plans," Whaley remembers. The university board asked Whaley, who was

now assistant to the president at the university, to be acting president and to initiate the search for a new president. The board also asked him to reorganize the medical center, which needed a vice president for health sciences.

For 6 months, Whaley was a university president. Recruitment for a new president went smoothly, but Whaley struck out when it came to filling the health sciences post.

"We had two prospects, but neither wanted the job. Out of my failure to recruit for it, I was awarded the job. Here I was, no physician, not really an educator, and I was responsible for the medical center."

It was as a medical center vice president that Whaley first became acquainted with NIH.

"I was treated well when I came up here," he recalls of a mission to Bethesda to obtain special equipment for cardiac catheterization. "I was taken in hand by Luther Terry, who helped me get the equipment we needed."

Terry, who would become U.S. surgeon general, was one of two critical contacts for Whaley in government. The other was Dr. Robert Marston, who held a position similar to Whaley's at the University of Mississippi.

"Terry, when he was surgeon general, asked me to serve on the National Advisory Health Council," said Whaley, who made many NIH contacts as a result. Terry also appointed him to the United States delegation to the World Health Assembly, World Health Organization, in 1962-64.

Marston had come to NIH in 1966 as head of the Regional Medical Program.

"He invited me to join him at NIH but I couldn't shake loose," Whaley remembers. Nevertheless Storm consulted to the RMP and wrote speeches on its behalf.

When Marston was named NIH

director, he created the position of NIH associate director for communications and persuaded Whaley to take the post in July 1970. In almost 22 years, Whaley kept the same office and desk in Bldg. 1, serving directors who were more and less interested in the importance of communicating NIH's mission to the public.



Former NIH director Dr. Donald Fredrickson greets his friend and former speechwriter at the reception. Whaley said Fredrickson "invariably improved the speeches I wrote for him."

Of former director Dr. Donald Fredrickson, who was also at the reception, Whaley recalls, "He was a very interesting person to work with. I always enjoyed it. It was adventurous and fun to draft speeches for him. It was also humbling. He would invariably improve my writing during brainstorming sessions."

About Wyngaarden: "Again, a very stimulating thing to do. He did a great deal of speaking, and had an absolutely photographic memory."

Whaley said that Lunch Bunch gatherings were organized in part to determine what Marston, who had a deep Southern accent, was saying.

He calls Healy "very determined and imaginative. When we called her former colleagues to see what she was

like, we were told we better get us some roller skates."

His oddest assignment, he remembers, is when President Ford was at NIH for Fredrickson's swearing-in. The Secret Service paged Whaley to report to the head of the White House detail immediately. Arriving on the scene, Whaley learned that he was needed to clear the chaplain's prayer.

"That was probably the most exalted assignment I had," he says, chuckling. "I couldn't figure out what they were looking for, frankly."

Whaley plans to remain in Bethesda for the immediate future.

"I may get more serious about watercoloring," he says of a painting career that blossomed in the mid-1970's at the urging of one of his three daughters. "I can get lost in painting," he admits. "It hasn't lost its fascination. I'm still very much addicted." Whaley says he will remember fondly his years at NIH, during which he has become almost as much a part of the institution as the pillars in front of Bldg. 1.

"The reception I had here was impressive," he said. "I've always felt comfortable working with people that I recognize as giants. I was never made to feel uncomfortable. I learned a lot about medicine. One of the things you have to do is recognize that you don't know much."

Whaley leaves NIH as the dean—by a longshot—of the Office of the Director staff, having served since July 1, 1970. His nearest competitor, in terms of longevity, is Dr. Philip S. Chen, Jr., who became an associate director 13 years after Whaley.

At a ceremony in his office on his last work day, Whaley assured his colleagues that he will keep in touch. "I'll be around," he said, exchanging hugs with coworkers. He has recently been elected to serve on the NIHAA board of directors.

Symposium (continued from p. 1)

Alumnus of the Year. Shelly Wolff is being honored for his important contributions to studies of host defense against infectious diseases, for his enormous impact on clinical medicine, and for his unusual ability to foster the careers of a large group of clinician-scientists, many of whom now occupy leadership positions in infectious diseases throughout the world.



Dr. Sheldon M. Wolff is the recipient of the NIH/NIAID 1992 Distinguished Alumni Award. He was clinical director and chief of the laboratory of clinical investigation, NIAID, from 1966 to 1977. He is now physician-in-chief, New England Medical Center, and Endicott professor and chairman of the department of medicine at Tufts University School of Medicine.

"We hope that many alumni will return to the Bethesda campus and join us for the Monday morning symposium, and then stay to participate in the other activities that follow."

The 1992 NIH Research Festival will continue Monday afternoon, Sept. 21 with an opening symposium on neurosciences. On Tuesday, Sept. 22, there will be three other symposia: "The Extracellular Matrix in Development and Pathology," "Structural Bio-

logy," and "Transgenic Animals as Disease Models."

More than 30 workshops are planned for the festival, along with poster sessions accompanying corresponding workshops. The workshops will be held on Tuesday, Sept. 21, in various locations throughout the campus. The posters will be displayed in the Research Festival tents that will be set up in parking lot 10-D southwest of the Clinical Center. The final program and scheduling information with details will be available in August.

The Technical Sales Association (TSA) will provide refreshments for each poster session on Monday and Tuesday. There will be no picnic this year. Thursday, Sept. 24 and Friday, Sept. 25 have been reserved for the TSA Scientific Equipment Show in the

Research Festival tents. There will be over 300 exhibitors; it is one of the largest shows on the east coast.

The research festival committee is chaired this year by Dr. Edward Korn, NHLBI scientific director. The Research Festival was started 7 years ago by Dr. Abner Notkins, director of intramural research, NIDR. Efforts by Notkins and subsequent chairpersons, Dr. J. Edward Rall, former NIH deputy director for intramural research, and the NIH Special Projects Office headed by Thomas Flavin, have made the event a great success.

The next issue of NIHAA Update will have more coverage of the final schedule and program. For more information call the NIHAA office at (301) 530-0567 or the NIH Visitor Information Center at (301) 496-1776.

NIH/NIAID Distinguished Alumni Symposium

Monday, Sept. 21, 1992, 8:45 a.m. — 12 noon
Masur Auditorium, Bldg. 10

Chairperson

Dr. John I. Gallin

Dr. Anthony S. Fauci

Award Presentation

Opening Remarks

Dr. Anthony S. Fauci

Dr. Charles A. Dinarello

Tufts University School of Medicine
The Role of Interleukin-1 in Disease

Speakers

Dr. Richard M. Krause
Fogarty International Center
National Institutes of Health
The Origins of Plagues

Dr. Sheldon M. Wolff
Tufts University School of Medicine
*Mechanisms of Host Defense:
Recollections on the Development of
an Intramural Program*

Dr. Baruj Benacerraf
Dana-Farber Cancer Institute
Antigen Processing and Presentation

Dr. Mark M. Davis
Stanford University School of
Medicine
*Topology and Chemistry of T Cell
Recognition*

Dr. Charles A. Janeway, Jr.
Yale University School of Medicine
The Activation of CD4 T Cells

News From and About NIHAA Members and Foreign Chapters

Dr. Lawrence D. Aronson, who was in NIAMD's Laboratory of Biochemical Pharmacy as a staff associate from 1967 to 1969, is a medical consultant for the Michigan State Department of Education in Lansing.

Dr. Stanley Barban, a scientist administrator at NIAID from 1949 until he retired in 1988, has been volunteering in the Emeritus Scientists, Mathematicians and Engineers (ESME) program. He has been teaching at two elementary schools in the District. He has put together a course called "The Invisible World" with 6 lectures on microbiology and virology. The whole experience of teaching 5th and 6th graders is "very challenging and enjoyable" and he would like to encourage other NIHAA members to participate. If you would like more information about the program you may call the project director, Dr. Harold I. Sharlin, at (202) 966-2122.

Carolyn Brown, chief of the NIH Library, retired in January 1992. Her first library position was at NIH, but she then worked at the National Naval Medical Center, National Bureau of

Executive Office of the President. She returned to NIH in 1982 when she was selected chief of the NIH Library. She writes that she has no immediate plans except to do "some traveling, and to look at other parts of the country with the thought of a possible move closer to a daughter in California. But that's long-term."

Dr. George F. Cahill, director of the Howard Hughes Medical Student Scholars Program and vice president for scientific training and development at the Howard Hughes Medical Institute from 1984 to 1989, writes that he is now teaching biology at Dartmouth College where he is professor of biological sciences.

Dr. Paul Calabresi, who was a field investigator at NCI from 1956 to 1960,



is now professor and chairman of the department of medicine at Brown University School of Medicine, and chairman of the National Cancer Advisory Board. In March, he received the Oscar Hunter Memorial Award in Therapeutics at the 93rd annual meeting of the American Society for Clinical Pharmacology and Therapeutics. This award honors individual scientists for outstanding contributions to clinical

pharmacology and therapeutics and it recognizes a meritorious career in drug research, excellence in patient care, and a distinguished teaching career.

Dr. G. Rasul Chaudhry, a senior staff fellow in the Laboratory of Molecular Biology, NINCDS, from 1982 to 1985, writes that after he left NIH he was in the soil science department at the University of Florida. In 1990, he went to Oakland University in Rochester, Minn., where he is an associate professor in the department of biological sciences.

Dr. Deborah J. Cotton, a clinical associate in NIAID's Laboratory of Clinical Investigation from 1978 to 1984, and also a medical staff fellow at NCI in the Pediatric Branch, is now assistant professor in the department of health policy and management at the Harvard School of Public Health. She is also an assistant professor of medicine at Harvard Medical School and an associate physician at Beth Israel Hospital.

Dr. Eli Glatstein, chief of NCI's Radiation Oncology Branch from August 1977 to February 1992, is now professor and chairman of the department of radiation oncology at the University of Texas, Southwestern Medical School in Dallas. He is also in charge of a newly created Center for Therapeutic Cancer Research.

Dr. Edgar Haber, an NIH Fellow from 1958 to 1962, has been named to head a new laboratory at the Harvard School of Public Health. Bristol-Myers Squibb gave a \$23.5 million grant to SPH to support a cardiovascular research center for 5 years. He will study genes

(continued on p. 10)



Standards, National Oceanic and Atmospheric Administration and the

(continued from p. 9)

controlling the cells that narrow arterial walls, and the mechanisms of blood clot formation. He has also been named the first holder of the Blout professorship of health science since he will head the laboratory as director of the division of biological sciences at SPII. The chair honors Elkan R. Blout, who set up the biological sciences division.

Dr. Theodore Hahn, who was at NCI in the Metabolism Branch as a clinical associate from 1966 to 1969, was recently selected by G.D. Searle & Co. to share in \$10 million in research funds for investigations into prostaglandins, arthritis, and related inflammatory diseases. He is director of geriatric research at the Veterans Administration Medical Center in Los Angeles.

Dr. John W. Hiemenz, a clinical associate at NCI from 1980 to 1983, writes that after spending a year on the staff in the division of medical oncology at the University of Florida in Gainesville, he joined the newly formed division of bone marrow transplantation at the H. Lee Moffit Cancer Center at the University of South Florida in Tampa. He has been on the staff there since August 1991. The transplant unit at the Moffit Cancer Center has grown rapidly since it opened 2 years ago. They have now transplanted more than 100 patients with a variety of tumor types. His investigational interests continue to be supportive care, particularly the management of opportunistic infections in the immunosuppressed cancer patient. He plans to continue his previous ties and collaborative efforts with Dr. Philip Pizzo, chief of the Pediatric Branch, NCI, and other members of his group.

Dr. R. Rodney Howell, who was a clinical associate in clinical investigations at NIAMD from 1960 to 1962, and a staff associate in the Laboratory of Molecular Biology, NIAMD, from 1962 to 1964, is currently professor and chairman of the department of pediatrics at the University of Miami School of Medicine and chief of pediatrics, Children's Hospital Center, UM/Miami. He writes, under suggestions for the newsletter, that he hopes it will continue to "keep members posted about major NIH programs and plans and keep up with major events with alumni." He also suggests that NIHAA members are "a well informed group that can be very supportive (or not) of key NIH programs through our elected representatives—especially in very populous states."

Dr. Robert I. Levy, who was at NIH from 1963 to 1981, with his last position as director of NHLBI, left Sandoz Pharmaceuticals Corp. in March, where he has been president of the Sandoz Research Institute since 1988. He has joined the Wyeth-Ayerst Laboratories unit of the American Home Products Corp. as director of worldwide research.

Dr. Charles R. McCarthy, who was director of the Office for Protection from Research Risks, OD, retired on Mar. 31. He plans "to write a book on *The Protection of the Rights and Welfare of Human Subjects*. In the fall of 1992, I will be working as a senior research scholar at the Kennedy Institute for Ethics, Georgetown University."



A new NIHAA chapter met on Feb. 19, 1992, in Turku, Finland. The chapter named itself "Sunomen NIH Alumni Association" ("Sunomen" means Finnish). The 11 members represented universities in Helsinki and Oula. They are (first row, from l) Pannu Viikki, chairman; Niilo Karki, Heikki Seppä; (second row, from l) Maila Penttinen, Risto Penttinen, secretary; Veijo Raunio; (third row, from l) Kari Punnonen, Susanna Punnonen, Hannu Raunio, Kari Pulkki; and (fourth row) Hannu Larjava. There are over 30 members in "Sunomen NIH Alumni Association" who will keep us up to date on the chapter's activities. "Tervehdys" and "tervetullut" (greetings and welcome) from NIHAA in Bethesda.

Dr. Daniel W. Nixon, associate director in the Cancer Prevention Research Program at NCI from 1987 to 1989, and now American Cancer Society vice president for professional education, recently completed a study to modify eating behavior of sailors. The crew of a United States Navy ship assigned to the Mediterranean ate meals prepared according to ACS guidelines for nutrition during a 6-month deployment. The ACS guidelines provide advice on a dietary pattern to follow for lowered cancer risk—i.e., eat foods low in fat and high in fiber; include a variety of foods, especially more fruits and vegetables; and practice moderation. The sailors liked the diet and lost an average of 12 pounds, compared to sailors on the control ship.

Dr. Jack A. Roth, who was head of the thoracic oncology section at NCI from 1980 to 1986, is now chairman of thoracic surgery at the University of Texas M.D. Anderson Cancer Center, Houston. The Society of Surgical Oncology presented its Lucy Wortham James Award to him in March. It is the society's highest honor and recognizes him for "outstanding contributions in clinical oncology research, notably his applications of new molecular biology

techniques to prevention and therapy of thoracic cancers."

Dr. Millie P. Schaefer, who was at NCI from 1976 to 1978, and at NHLBI from 1978 to 1986, has accepted a research position with NIOSH in Cincinnati, Ohio. She writes that she "enjoys the newsletter. Keep it coming."

Dr. Irving "Ozzie" Simos, who was deputy chief of DRG's Referral and Review Branch before passing away on Dec. 9, 1990, was remembered on Apr. 26 with a concert at Walter Johnson High School in Bethesda. Titled "Ever Since Babylon," the oratorio commemorated the 500th anniversary of Columbus' voyage to the New World and of the expulsion of the Jews from Spain. It was sponsored by Congregation Beth El where Simos, a violinist, was a member.



Dr. Michael D. Sussman, a staff fellow and a guest investigator at NIH from 1969 to 1973, has left the Univer-

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The Egyptian Association of NIH Alumni met in Cairo in November 1991. There were over 30 members at this second general meeting of the group. Shown in the photo are the officers and the board of directors elected at the meeting (front row, from l) S. Gerzawy, M. Raafat, M. N. El-Bolkainy, chairman; N. Mokhtar, A. Korshid, and M. Attia; (second row, from l) S. Abdel Hadi, treasurer; R. Hamza, M. Hussein, H. Khaled, secretary; S. Shouman and A. Nabawi. The National Cancer Institute of Egypt will be the headquarters of the association; organizational planning is underway.

(continued from p. 11)

sity of Virginia, where he was for the past 15 years professor of orthopaedic surgery, professor of pediatrics, and director of the division of pediatric orthopaedics. He writes that, on Jan. 1, he became chief of staff at the Shriners Hospital for Crippled Children in Portland, Ore. "In this new job I will be responsible for medical direction of hospital affairs at this 40-bed pediatric orthopaedic hospital, as well as having responsibility for direction of the basic science laboratory which is made up of 7 primary investigators, all of whom are studying various aspects of connective tissues."

Dr. P. Roy Vagelos, senior surgeon and then head of the section of comparative biochemistry, Laboratory of Biochemistry, NHLBI, from 1956 to 1966, is currently chairman and chief executive officer of Merck & Co., Inc. In a poll conducted by *Fortune* magazine, Merck for the sixth straight year earned the highest rating among 307 major companies. In 1991, the company ranked first in seven categories with the highest score of any company in the 10 years of the survey. Vagelos was also named one of the outstanding CEO's who was responsible for the company's "golden" record.

Dr. Kathryn C. Zoon, who was in the Laboratory of Chemical Biology, NIAMDD, from 1975 to 1980, as a postdoc and staff and senior fellow, has been named the new director of FDA's Center for Biologics Evaluation and Research. The center coordinates FDA's efforts against AIDS, and is also responsible for the safety and effectiveness of biological products. Since 1988, she had been director of the division of cytokine biology at FDA.

NIHAA Taiwan Chapter Celebrates 30th Anniversary

On Feb. 22, the National Institutes of Health Alumni Association Taiwan chapter held a special celebration in observance of the 30th anniversary of Taiwan's first formal association with the NIH. Dr. Hung-Chi Lue, chairman, NIHAA Taiwan, presided over the celebration. Representatives from various Taiwan agencies and organizations participated, including Dr. Po-Ya Chang, director-general, Department of Health, Republic of China. Chang also hosted a banquet in honor of the occasion.

Participation in the celebration by representatives from the United States was made possible through the generous support of the government of Taiwan. It included two current NIH staff members, and two NIH alumni. The two current staff members were Dr. Theodore Nash of the National Institute of Allergy and Infectious Diseases, and Dr. Kenneth Culver of the National Cancer Institute. One alumna participant was Nash's spouse.

Dr. Carol Lee Koski, formerly of the National Institute of Neurological and Communicative Disorders and Stroke, and currently a faculty member at the University of Maryland School of Medicine. The other alumna was Dr. Joe R. Held, NIHAA president.

In 1962, the NIH supported three Taiwanese postdoctoral fellows for special studies in the U.S., marking the beginning of a tradition that has resulted in more than 100 Taiwanese physicians and scientists receiving similar support during subsequent years. The Taiwan chapter, established on Dec. 12, 1987, at the time of the NIH Centennial, is made up of approximately 80 of these individuals. The chapter was one of the first to be established, and has had an active program including the holding of annual scientific meetings.

The celebration was organized by the NIHAA Taiwan chapter, and the Taiwan NIH fellowships committee. It was sponsored by the College of



Among those attending the banquet in honor of the 30th anniversary of Taiwan's first association with NIH were (from l) Juliana Lue, Dr. Po-Ya Chang, director-general, Department of Health, Republic of China; and Dr. Hung-Chi Lue, chairman, NIHAA Taiwan.

Medicine, National Taiwan University, the National Department of Health, the National Science Council, and the Bristol-Myers Squibb Co.'s Taiwan Pharmaceutical Group. The highlight of the celebration was a scientific symposium, the Fifth NIHAA Taiwan Scientific Meeting. Of the three original fellows who received awards in 1962, two are still living and participated in the celebration: Dr. Chin-Yun Lee and Dr. Chuan-Chiung Chang.

The symposium included the following presentations: "Primary immunodeficiency disease in Taiwan," by Dr. Kue-Hsiung Hsieh; "Patterns of genetic disorders and approaches for genetic health promotion in Taiwan," by Dr. Tso-Ren Wang; "Bone marrow transplantation in the treatment of leukemia and thalassemia," by Dr. Yao-Chang Chen; "Human gene therapy for immunodeficiency and cancer," by Dr. Kenneth W. Culver; "Pathogenesis of Guillain-Barré syndrome," by Dr. Carol Lee Koski; "Neuromuscular paralysis by toxins and nerve gases," by Dr. Chuan-Chiung Chang; "Surface antigenic variation in *Giardia lamblia*," by Dr. Theodore E. Nash; "Infectious course of *Giardia lamblia* virus," by Dr. Jung-Hsiang Tai; "Targeting the glycosome," by Dr. Ching-Chung Wang; "Hypertrophic cardiomyopathy in the pig," by Dr. Si-Kwang Liu; "National laboratory animal breeding and research center: Its role and function in biomedical research in Taiwan," by Dr. Chou C. Hong; and "Current trends in the utilization of animals in biomedical research and testing," by Dr. Joe R. Held.

During the week before the symposium, the U.S. visitors had the opportunity to visit the National Department of Health, the National Taiwan University Hospital, the Veterans General Hos-

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The NIH/NIHAA contingent on the steps of the Institute of Molecular Biology, Academia Sinica, were (from l) Dr. Joe R. Held, NIHAA president; Dr. C.C. Wang, Director, Institute of Molecular Biology; Dr. Kenneth Culver, NCI, Dr. Theodore Nash, NIAID; Dr. Carol Koski, University of Maryland School of Medicine; and Dr. Ming-Yang Yeh, NIHAA Taiwan.



The NIH Taiwan chairmen at the banquet were (from l) Dr. Hung-Chi Lue, 1990-1992; Dr. Joe R. Held, NIHAA president; Dr. Chen-Yuan Lee, 1987-1988; and Dr. Po-Chao Huang, 1988-1990.



Participants in the NIHAA Taiwan scientific meeting held in observance of NIH Taiwan 30th year anniversary, which took place on Feb. 22, 1992, met at the College of Medicine, National Taiwan University, Taipei, Taiwan, Republic of China.

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pital, the National Defense Medical Center and Tri-Service General Hospital, the Academia Sinica's Institute of Biomedical Sciences and Institute of Molecular Biology, and the Pig Research Institute of Taiwan.

There was a good deal of evidence of the emphasis being given to biomedical research as a national priority. The visitors found an impressive array of research activities and resources for their support. Among those with whom they met was Dr. Chen-Wen Wu, who has recently returned to Taiwan from the U.S., where he was most recently on the faculty at the State University of New York at Stony Brook, to become director of the Institute of Biomedical Sciences. Moreover, the director-general of the Department of Health has given him the added responsibility of heading a staff that is planning a new National Institute for Health Research.

Besides visiting biomedical facilities, the visitors also had the opportunity

to become acquainted with some of the country's cultural heritage and beautiful scenery. Prominent in this regard was a visit to the National Palace Museum, which contains one of the world's greatest collections of historical Chinese artifacts.

Upon his return, when reporting to the NIHAA Board of Directors on the visit, Held said, "This was an outstanding opportunity to reinforce our ties with our colleagues from another country who had a common bond with us, not only because of our past connections with NIH, but also because of a dedication to work that will continue to improve the health and welfare of peoples everywhere. The NIHAA can play a special role in helping to maintain the ties that were established through the NIH visiting and fellowship programs, and thus reinforce the types of contacts that will strengthen biomedical research throughout the world. The Taiwan chapter deserves special recognition for having been one of the first NIHAA

chapters, and for the active program that it has developed for continuing exchange of scientific information. It has set a good example for many others. Not only did we find this to be a beneficial experience, but also an especially pleasant one, thanks to the warm and friendly hospitality of our hosts."

Just recently the Taiwan Chapter, NIHAA, elected Dr. Cheng-Wen Wu, president; and Dr. Ding-Shinn Chen, vice president for the years 1991-1995.

The DeWitt Stetten, Jr. Museum of Medical Research plans to open three exhibits this fall in the Clinical Center (Bldg. 10):

1. *The World of Medical and Scientific Instruments*
2. *Synthetic Opiates: Man-Made Pain Relievers*
3. *Supercomputing in Medical Research*

Science Research Updates

INCREASED RISK OF BREAST CANCER FROM RADIATION TREATMENT IS SMALL

Radiation treatment for breast cancer contributes very little to the risk of developing cancer in the opposite breast, according to a report by the National Cancer Institute, published in the Mar. 19, 1992, *New England Journal of Medicine*.

Researchers compared the exposure to radiation therapy in two groups of women diagnosed with breast cancer between 1935 and 1982. One group consisted of 655 women in whom a second cancer had developed in the opposite breast at least 5 years after the initial mammary tumor. The other group comprised 1,189 control patients with breast cancer who did not develop a second tumor. The patients were matched by age, year of initial diagnosis, race, and length of survival.

Overall, only 23 percent of those who had received radiation therapy developed cancer in the other breast, compared with 20 percent of the control group. Among women who survived for at least 10 years, radiation treatment was associated with a small elevated risk of a second breast cancer, which increased significantly with the dose of radiation. The women treated with radiation for breast cancer before age 45 had a 60 percent greater chance of developing a tumor in the opposite breast than same-age women who did not receive radiation for their breast cancer. Radiation exposure after the age of 45, however, when the majority of breast cancers are diagnosed, posed minimal risk.

Regardless of the type of treatment received, women with cancer in one

breast have approximately a 200 percent increased risk of developing a second primary tumor in the other breast compared to women without the disease. Radiation was once commonly used as a part of treatment after mastectomy, but currently is used most frequently as localized treatment after lumpectomy as primary therapy for women with early stage breast cancer.

Therefore, according to NCI's Dr. John Boice, Jr., principal investigator of the study, the results provide "reassurance that the breast cancer risk from radiation treatments is small," and should not be a factor in the selection of therapy. "It seems prudent, however, to try to minimize the radiation exposure of the opposite breast whenever possible during treatment, particularly for women less than 45 years of age," said Boice.

RATE OF ASYMPTOMATIC SHEDDING OF HERPES SIMPLEX TYPE 2 IS HIGHEST FOLLOWING INITIAL INFECTION

A study of young women with genital herpes has shown that asymptomatic shedding of herpes simplex virus (HSV) type 2 occurs most frequently during the first 3 months after the initial episode of infection.

The study, funded by the National Institute of Allergy and Infectious Diseases, was conducted by Drs. David Koelle, Lawrence Corey, and colleagues at the University of Washington in Seattle. Of 306 women with a first symptomatic episode of genital herpes, 43 had primary HSV type 1, 227 had primary HSV type 2, and 36 had prior oral-labial HSV type 1 and had recently acquired their first infection with HSV type 2. Cultures for HSV were obtained every 4-6 weeks, during times at which no lesions or

symptoms were present. The median follow-up was 63 weeks.

The overall rates of asymptomatic shedding from any site were significantly higher for women with HSV type 2 compared with those from type 1 infection. Asymptomatic cervical shedding, however, was three times more frequent early after primary HSV type 2 infection—during the first 3 months—than later. The frequency of asymptomatic reactivation after primary HSV type 2 infection decreased over the course of follow-up, but the rate of symptomatic recurrent herpes did not change over time.

Study findings suggest that the risk of exposure to HSV type 1 via sexual activity, whether from contact with genital lesions or unwitting contact with asymptomatic shedding, is less than that of type 2. Asymptomatic HSV type 2 is more common than type 1. The researchers recommend, therefore, that patients be counseled as to the importance of the routine use of condoms to prevent transmission of infection to sexual partners, particularly during the 3 month period of highest risk.

Results of this study were published in the Mar. 15, 1992, issue of the *Annals of Internal Medicine*.

SUPERVISED WALKING AND EDUCATION FOUND BENEFICIAL IN OSTEOARTHRITIS OF THE KNEE

A supervised program combining fitness walking and supportive patient education for individuals with osteoarthritis of the knee can improve function without worsening disease-related symptoms or pain. This was the finding of a clinical trial supported by the National Institute of Arthritis and Musculoskeletal and Skin Diseases, published in the *Annals of Internal*

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Medicine, Apr. 1, 1992.

Dr. Pamela Kovar and her colleagues at the Cornell Arthritis and Musculoskeletal Diseases Center, Hospital for Special Surgery in New York and at the Medical College of Georgia in Augusta evaluated the effects of an 8 week program of supervised fitness walking and patient education, compared with standard medical care. The 92 patients in the study were between 40 and 89 years of age, with chronic osteoarthritis of one or both knee joints associated with a history of symptomatic knee pain during weight-bearing activities.

Forty-seven patients participated in a program consisting of three sessions per week of light stretching and strengthening exercises, education designed to motivate physical activity, and up to 30 minutes of walking.

After 8 weeks, the researchers used the Arthritis Impact Measurement Scale to assess the functional status, complaints of pain, and use of medication of these patients, along with a walking distance test, and compared the results with those of 45 patients who had received routine medical care only.

The patients assigned to the walking program had an average 18.4 percent improvement in walking distance relative to their pre-intervention assessments. In contrast, those who had not participated in the program showed a decrease in distance walked relative to their earlier measurements. The walking group also had a 39 percent improvement in functional status, a 27 percent decrease in pain, and reduction in the use of medication.

The researchers believe that these findings provide compelling evidence of the potential value of supervised fitness walking in conjunction with supportive education in managing patients with osteoarthritis.

INCIDENCE OF ASTHMA IS INCREASED IN CHILDREN OF MOTHERS WHO SMOKE

Children are at increased risk of developing asthma if their mothers smoke 10 or more cigarettes per day and have 12 or fewer years of formal education, according to a study supported by the National Heart, Lung, and Blood Institute.

Scientists at the University of Arizona College of Medicine in Tucson, led by Dr. Fernando Martinez, conducted a longitudinal study of 786 children, enrolled when younger than 5 years of age, to determine the relationship between parental smoking and both subsequent incidence of asthma and status of lung function before the age of 12.

They found that children of mothers who had 12 or fewer years of education and who smoked at least 10 cigarettes a day, were 2.5 times or 70 percent more likely to develop asthma, and had 15.7 percent lower values on a test of lung function than children of mothers at the same education level who smoked less or were non-smokers. In contrast, however, maternal smoking had no significant effect on the subsequent incidence of asthma or status of lung function in children whose mothers had more than 12 years of education. It is possible that increased exposure to air-borne allergens, as well as nutritional factors, may make children of less educated mothers more susceptible to the adverse effects of passive smoking.

The findings suggest that many cases of childhood asthma could be prevented if smoking cessation efforts were aimed especially at less educated women of childbearing age, among whom there has been an increased prevalence of smoking.

Study results were published in the Jan. 1, 1992, issue of *Pediatrics*.

CALENDAR

May to July

An exhibit on "Images of Hospital Pharmacy in America," commemorating the 50th anniversary of the founding of the American Society of Hospital Pharmacists will be on display in the front lobby of the NLM (Bldg. 38, 8600 Rockville Pike) from May 28 to July 28, 1992. The exhibit is mounted in collaboration with the Smithsonian Institution and will include books, documents, photographs and artifacts. For more information about the exhibit contact the History of Medicine Division, NLM, (301) 496-7976.

June

The third "Town Meeting" is scheduled for Monday, June 29 in Masur Auditorium, Bldg. 10 at 1:00 p.m. Speakers will be Rep. Connie Morella (R.-Md.) and Judith Martin, a.k.a. Miss Manners.

September

1992 NIH Research Festival
Sept. 21—NIH/NIAID Alumni Symposium on Monday morning from 8:45 to 12 noon in Masur Auditorium, Bldg. 10.

Sept. 21 and 22—Additional symposia, workshops and coordinated poster sessions.

Sept. 24 and 25—Technical Sales Association Scientific Equipment Show in Research Festival Tents.

For more information about various lectures and events at NIH, call (301) 496-1766. For information about NIHAA call (301) 530-0567.

MacArthur- Some Glimpses

By Dr. Roger O. Egeberg

Editor's Note: Dr. Egeberg is a senior scholar in residence at the National Academy of Sciences' Institute of Medicine, and a member of NIHAA's Board of Contributing Editors. In this essay, he shares with us his reminiscences about Gen. Douglas MacArthur. On June 4, Egeberg appeared on CBS television talking about his World War II experiences.

I first met General MacArthur in a swamp. I was in the right on a one-way road but in a last minute decision, I allowed him to stay dry while I got wet.

I was Surgeon of the Command in Milne Bay, New Guinea, early in World War II. Among my responsibilities was staging (finding a temporary home for) small hospitals on their way to support the fighting on the north coast. The plain was just above high-water level, and sudden torrents from the Owen Stanleys often flooded large areas.

Exploring the jungle, I had found a few acres of safe land. To use it I had to get permission from the Sixth Army, which was responsible for making New Guinea ours.

My headquarters was about 8 miles from the Sixth Army headquarters. On arriving, the Sixth Army Surgeon agreed that I should have two acres but he suggested I see the Chief Engineer, who in turn insisted I see the head of Signal Corps, who passed me along to G-1, G-2, G-3, and G-4. Seven visits—the day shot. I started home angry.

There was a stretch of about a half mile of one-way road. I entered it headed in the right direction. Soon, I saw approaching me six jeeps. "Some of those damn Sixth Army colonels coming the wrong way on their own road; I'll show them." With my head lowered, I continued my course, but soon



Dr. Roger O. Egeberg

decided I didn't want to hit the front jeep too hard. I looked up to judge the distance and saw on the front jeep, less than a hundred feet away, a red placard with four stars on it. In the vehicle were General MacArthur and General Krueger!

I gave my steering wheel a hard turn off the road, jumped out and managed a salute as both the jeep and I slowly sank into the swamp . . . and the cavalcade passed by. MacArthur was the only one who returned my salute. He was pretty close and I detected a slight smile on his face.

Half an hour later a soldier, driving one of our 6-wheel trucks, pulled my sinking jeep back onto the road.

About 20 minutes later I was stopped by a truck dumping rocks into a low spot in the road. Before the truck had finished, a jeep tried to pass me. That stopped the truck and created a three-vehicle traffic jam. I turned to the other jeep and shouted, "You goddamned sonovabitch, can't you see . . ." At least this time it was only a two-star general. I weakly pretended to be cursing my engine as I backed off down the road.

I was formally introduced to MacArthur in Brisbane, Australia, some months later. I had returned to Australia after a year in Milne Bay and was called in to see Gen. George Rice,

the chief medical officer in GHQ. He told me that MacArthur was looking for a doctor and wanted to interview a few. I was startled but responded, "I don't want to be his doctor. He's the cause of all our troubles in Milne Bay. The same food each day for 3 months. Not enough bulldozers. Not enough jeeps. No oil for the control of malaria. And a Sixth Army Headquarters that's too demanding."

He was as amazed at my answer as I had been at his request. "Egeberg, you're talking awfully goddamned big. Go back to your quarters and talk with some of your friends; and come back to see me tomorrow morning at 9 o'clock."

I did. The next morning, apologizing for my hasty answer, I told Gen. Rice I would be honored to serve as the general's physician if chosen.

The next day a colonel took me into the office of the acting chief of staff. "Lieutenant Colonel Roger O. Egeberg 0400234 reporting for an interview with General MacArthur," I saluted at attention as my driver had instructed me. Then I saw the two stars on his shoulders and had a good look at his face. It was the "sonovabitch." "We have met before," he muttered, not looking at all happy. "Yes sir. Milne Bay, New Guinea, sir." "I remember well, and if the general takes you on, I trust you will never use such language in his presence."

I entered a large room and there was MacArthur striding toward me with his hand outstretched and a welcoming smile on his face. He wanted to know about my background and was particularly interested in my year behind the Himalayas at the age of 20.

He started telling me what he hoped I would do as the doctor for the officers of GHQ. I had thought this was just an interview, but gathered I was in and found that I was thrilled. He hoped I would start a small dispensary for the

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officers to get initial health care, and wanted me to take care of him and "Jean and Arthur."

"You know, my officers are under a particular strain. They don't have the opportunity to relax and some of them begin to feel the strain. I want you to get to know these officers, know them well enough so you can determine if any should be relieved for a week or two, possibly a visit home if you think it indicated." He kept that word.

My first landing with the general was the most exciting one. It was in the Admiralty Islands. I had been his doctor for 3 months, had set up the dispensary and had begun to ask myself, "Is this just a posh job?" when Larry Lehrbas, the general's senior aide, told me that we would be joining the general on a landing and would be leaving in 3 days.

We flew to Milne Bay and, with a fair amount of saluting, boarded the cruiser *Phoenix*—the general, Adm. Thomas Kinkaid (head of the Seventh Fleet), Larry, and I. The ship left immediately and was out of Milne Bay heading north within the hour.

We anchored in the Finschhafen Roads. The general wanted to see the western part of the island of New Britain on which the Marines had landed a week or two earlier and by now had taken much of the western tip. We went ashore and walked inland about a half mile. "The Marines fought hard for this piece of ground," he said with admiration.

That evening we dined in his cabin with white cloth, shining silverware, and thin glassware.

I was awakened the next morning and joined the general in the dining part of his quarters about 5:00. After breakfast, in the predawn darkness, our 6-inch guns started bombarding the shore 6 miles off our port side. The luminescent rear ends of the shells traveled shoreward, disappeared from sight and

were soon followed by an explosion among the palm trees. We watched a landing barge leaving the LCI (landing craft infantry) that was near us. Then it was daylight but under a heavy overcast.

A landing craft appeared at our side and the general started toward the gangplank. We knew enough to precede him at that point, and I first and then Larry went down the steps. I found myself standing near the middle of the craft. It was a relatively quiet sea so the general easily made the transition from the gangplank to the landing craft. I thought it was time to sit down and sort of get behind the gunwale.

As we headed into the landing area, a soldier told us that the coxswain of an earlier landing craft had been killed at this place by machine gun fire. I longed to sit down, but the general remained standing and was looking keenly ahead.

I remember vividly the thoughts that went through my mind. Here we are, standing up when we could be down behind the steel sides of our craft, and there to the right of us is the point where the machine gun was supposed to be located. I thought I might drop my handkerchief and lean down to pick it up and hope that if any shooting started it would start at that moment. But I realized that if I once stooped over, I would probably not have the courage to stand up again, so I remained standing.

We touched the beach and the front of the landing craft was lowered. Immediately, MacArthur was met by Gen. William C. Chase, who was in command of this part of the First Cavalry Division. We continued forward to a landing strip, passing two places where men were setting up machine guns in shallow scooped-out holes and protecting them with palm tree trunks. The general stepped over the guns and was soon on the airstrip. He walked out onto it and I continued

at his side, being on his left—the appropriate military position—which now put me between him and the far side of the strip. It was drizzling and we walked down the strip a hundred yards or so.

Several shells had landed on the runway, and there were two dead Japanese soldiers. We went over to look at them, the general hoping to find some evidence of the kind of outfit to which they belonged. But they were both naked except for their shorts. As the general started back, I moved over to his right side between him and the other side of the strip, and at that point I heard Japanese voices in the woods just a couple of hundred feet away from us. Somebody who was all "spit and polish" suggested that I get over on the other side of the general, but the general heard him and said he understood why I was there. We all too slowly walked back to the beach.

The general had a final conversation with Chase, and they agreed that the Japanese would make an assault across that airstrip as soon as their reinforcements arrived. They discussed the firmness of our soldiers' perimeter and then we returned to the *Phoenix* and a late lunch.

I asked the general why he continued to walk up the strip when he heard Japanese voices right on the other side of it. His answer was, "Doc, those men are waiting for reinforcements from the lower end of See-Adler Bay, a few miles away before they make an assault. Some time late this afternoon they will make that charge." And they did. We killed over 600.

The next landing was a great one, the first of three, with a convoy stretching out of sight both forward and aft, as we made a feint toward Palau and then, during the night, came south and aimed for Hollandia. There we made an easy landing early in the morning, having advanced our position by 500 miles.

Months later we invaded the Philippines. There, on Leyte, we landed four divisions abreast with many hundreds of ships, transport and fighting, stretched along 25 miles of Leyte's shore.

It was on Leyte during our landings that General MacArthur, with President Osmeña at his side, announced, "I have returned." MacArthur, familiar with the Orient, had known that his promise "I shall return" carried more weight with the Filipinos than if he had said, "The United States Army will return" or "The Americans will return."

It was an unpleasant 3 months. The general had established his own quarters in the Price House, which the Japanese knew, and two or three times a week as we were eating dinner we would hear the beginning of a power dive by a Japanese fighter plane. We knew what it was diving at, and when it passed the climax of its sound, we knew we had to wait several seconds to find out how close the small bombs were. MacArthur would talk about other things during these short fear-some episodes, but every one of the rest of us wished we could have been in a hole in the ground. The bombs usually landed within 200 yards of our dinner table.

Not long after we landed, at a large gathering of the military on the steps of the Leyte capitol, MacArthur ushered in civilian rule to the Philippines.

It was the rainy season, and for the next 3 months Leyte was mud. We were confined pretty much to Tacloban, the capital of Leyte.

Our next gigantic convoy landing was in Lingayen Gulf at the north end of the main valley of Luzon, about 300 miles north of Manila. This convoy passed within 80 miles of Clark Field, which was held by the Japanese and loaded with kamikaze pilots. These pilots were already committed to death. They were expendable, like shells, and

were being used in that same deadly way. The kamikazes hit many of our ships and sank a number, one a small carrier near us. In Lingayen Gulf, our naval bombardment had driven the Japanese and the civilian Filipinos about 10 miles inland, so our landing was really without opposition anywhere near the shore.

On Luzon, MacArthur could travel about in his jeep, and did, but he was hampered by crowds of Filipinos that would gather about him whenever he stopped. On walks taken from his headquarters he was very soon leading a parade. He had promised Admiral Nimitz that we would have established ourselves on Clark Field by a certain date so we could send bombers to help the Central Pacific Forces when they took Okinawa, the large island between the Philippines and Japan.

As that time approached and we had not taken Clark Field, where we met great Japanese resistance, MacArthur

became anxious about keeping his word. He wanted to know where our troops were each day, and felt that getting his information through Gen. Kreuger, in charge of all the operations, delayed knowledge of their positions by at least a day. So on several occasions he sent me up to see where the fighting was going on, which I found out by arriving at the point where there would be four or five visible land mines lying on the road, our land mines. At other times, I got my information from the sound of machine gun and mortar fire near at hand.

Anxious to report that our men were on Clark Field, even a corner of it, MacArthur went out in his jeep, taking me along, to see for himself just where our front was. The second day, his exploration showed him just where the fighting was.

The driver, the general, Larry, and I were in the jeep when the general saw

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At Clark Field on Jan. 27, 1945, Gen. Douglas MacArthur (r) surveys the scene with Col. Larry Lehrbas (l), his senior aide, and Dr. Roger Egeberg (c).

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a broad path entering a sugar cane field. The sugar cane was taller by far than the jeep. He said, "Doc, this must lead to one of our observation posts. Keep an eye out for any wire that's running alongside." I could hear machine gun fire and cannon fire that sounded pretty close. A wire did appear on the left-hand side of our path, and the general and I saw it at the same time. He told the driver to follow it, and I said, "General, that doesn't look like one of our wires. It's too small. It could be leading us to a Japanese position." His look at me said, "Bosh."

The firing became louder and closer and suddenly we shot out of the sugar cane into an open area. We had hit the front. On a hill at our left, there were several Japanese machine guns shooting at three cannon immediately on our right. The cannon were obviously shooting pointblank at the machine guns, and we were almost under the trajectory of the firing. This was perhaps the only time I heard the general yell. The driver had not slowed down and MacArthur shouted, "Back up, back up," which we did almost without stopping. On our return trip to San Miguel, MacArthur said, "You know, I don't think Clark Field was very far away from that engagement." The following day, we had troops on a large part of the field.

The general's eyes always seemed a bit brighter when he started forward to a point of active fighting. He ignored sniper fire and never crouched. I could describe a number of incidents showing his fearlessness on such occasions but will just tell of our return to Bataan.

He told Larry and me of our goal the night before his return to the scene of the earlier "death march" following the surrender of our troops to the Japanese. MacArthur was up early and we were

off before daybreak. We had with us a jeepload of BAR men (Browning automatic riflemen) and were crossing the Papangas—a rich farm and fish pond area at the southern end of the Luzon valley.

As dawn came, the Zambali Mountains loomed ahead, and the general, looking toward their tops and then to the south, said something he was



Gen. Douglas MacArthur (l) with Dr. Roger Egeberg when they returned to Bataan in 1945.

impelled to say again that day. He pounded his chest and said, "You don't know what a leaden load this takes from my heart." He was becoming emotional, and I realized the many pictures and images that were shaping up in his mind. He pointed to the slopes of Santa Rosa Mountain: "Doc, if I were the Japanese, I would be collecting a force up there to harass and delay us—guerrillas, and I'll bet that's what they are doing right now."

We were passing peasants bringing

produce to the markets that lay behind us, the women with baskets of vegetables on their heads, and pairs of men carrying animals suspended from poles resting on their shoulders.

We came to the headquarters of the 38th Division, which had just fought its way up from Subic Bay in a long, tough engagement over the zigzag pass. They were getting ready to start down the east shore of Bataan. They told us that the Japanese were present in strength on the east side of the Bataan peninsula, and officers of our own headquarters and from the 6th Army Headquarters who had joined with correspondents and another load of BAR men to follow us did their best to dissuade the general from going further. The general was determined to continue and invited Gen. Hall to join Larry and me in the back seat of his jeep. Soon, we left farmland behind and entered a jungle that crowded in on us as we started down that fateful cobblestone road.

Several miles down the road with the jungle occasionally opening up a bit, we came to the division's forward position at the edge of a small field. They had within the past hour turned back a Japanese banzai attack, and in the field in front of us there lay 25 to 30 dead Japanese. Ponchos covered our 3 dead. The command car, two jeeps, and whatever else our small detachment had were still burning.

The solemn, sad looks on the faces of the five or six remaining troops were certainly not affected by our arrival. After acknowledging what he saw, the general talked with the commanding officer, an infantry captain, and asked him about the situation and, specifically, if he had any men forward. Our officers, seeming to realize what was going through the general's mind, tried one last time to dissuade him from going any farther. It was to no avail, and the

general said, "I'll take my own patrol. Doc, Larry, ready your carbines." He invited Gen. Hall (commanding general of the 38th Division) to join us, and we started on. We soon came upon the two point men, one on either side of the road. They told us they thought there were many Japanese ahead, but they didn't know how close. We went on 2 or 3 miles, now down to three jeeps. We came upon a small open area with a machine gun pointing at us from the other side. There was a pot of rice cooking, but no Japanese. They had left in a hurry.

We continued on, then heard over a walkie-talkie that a hundred Japanese coming across the bay from Manila had landed between us and the headquarters. We were finally and fortunately stopped by a destroyed bridge at least 15 miles below the 38th Division Headquarters. Here we were almost strafed by two of our own P-38s, which after observing from high up came down to strafing level before recognizing us as friends.

Long before the war was over, the general started telling me what he expected to do when the Japanese surrendered. It was before the atomic bombs had been dropped on Hiroshima and Nagasaki. And while we were planning the final attack on Honshu Island, he was also making plans for democratizing Japan. One day he suddenly said, "Doc, the Emperor is going to be very important to us in Japan, and his word can make a tremendous difference to the future of Japan and to our troops there. I shall ask him to appoint a cabinet of a highly military nature—generals, admirals, and the civilians who were part of the ruling hierarchy. I can imagine the public criticism that I shall get, but Doc, how are we going to demobilize their entire army—5 or 6 million men—and abolish their staff corps? We need that cabinet to do

those two jobs, and that will end the militarism."

On a later occasion he reminded me of our previous conversation and said, "I have a couple more cabinets for the Emperor." I don't remember the sequence of the cabinets but one of the early ones was to be the rich landowners of Japan, through whom he intended that the Emperor embark on a great agrarian reform. The next cabinet may have been the great industrialists of Japan whom he wanted the Emperor to persuade to handle their labor relations in a democratic way in the future. And in another cabinet there would be the question of suffrage, universal suffrage. MacArthur was making these plans while we were still fighting on Luzon and on Okinawa. All of these plans he carried out when he got to Japan.

The atomic bombs were dropped. The Japanese surrendered and we landed peacefully in Japan. MacArthur waited 10 or 12 days for the Emperor to suggest that he call on the general. He knew in his own mind that he should give the Emperor the opportunity to open the talks. This was what he had been waiting for. He personally was seeing to the arranging of the furniture for this first visit in the Great Hall of the Embassy, with my help, when we heard the Emperor's car on the gravel of the driveway. "Oh, I forgot to have a guard stationed at the door. Doc, you go out and greet him." He started to tell me what to do, then said, "Oh, you know what to do." So I went to the door, walked out and met the Emperor, who looked exactly like all the pictures I had seen of him—impassive face and wearing a cutaway. I greeted him seriously, warmly, and knew enough not to offer a handshake. I opened the door to the Embassy and there was MacArthur coming toward him with his hand outstretched, much the same as it had been when I first entered his office.

Book Brief

Ruth Roy Harris. Foreword by **Dr. Harald Løe**, *DENTAL SCIENCE IN A NEW AGE*, A History of the National Institute of Dental Research. Iowa State University Press, 1992. 496 pp.; 68 illus., hard-cover/jacket, ISBN 0-8138-1322-0, \$42.95 (Published by Montrose 1989; acquired by ISU Press, 1990).

The author, Ruth Roy Harris, senior historian of History Associates Inc., recounts events leading to and the actual creation of the NIDR; scientific, professional and political factors influencing its evolution to date; and the significant advances in dental science attained under its auspices.

The first chapter provides an overview of the history of dentistry—from Babylonian exorcism and Chinese recitations to remove the worms that caused tooth decay to Egyptian false teeth and Etruscan dental crowns and bridges. It covers the beginning of modern dentistry by the French in the 1600s to the rise of dental public health in the United States.

The remaining chapters describe the growing involvement of the federal government, the formation of the NIDR, and the emergence of dental research into the mainstream of biomedical research. The values and controversies of fluoridation are documented. So, too, are the contributions dental research is making to an understanding of the human genome, to the origin and metastasis of cancer, to genetic diseases, to infections like AIDS, and to basic studies of normal development, maturity, and aging of tissues.

Women (continued from p. 1)

Panelist Dr. M.A. Ruda, chief of the cellular and molecular mechanisms section in NIDR's Neurobiology and Anesthesiology Branch, verbalized the alien feeling.

"Standing here as part of this panel on gender barriers," she began, "I find myself in somewhat of an uncomfortable position because typically when I'm in a lecture hall addressing an audience, I have a carousel of slides, a darkened room and a lot of data to present. I'm somewhat ill at ease discussing gender barriers at NIH."

So instead of speaking before the usual darkened arena, which normally provides a kind of artificial shield from the audience, the panelists were met with a well-lit forum overflowing with a variety of spectators—the curious, the skeptical, the enthusiastic and the candid.

The tone for discussion was set early on by the first panelist—a 36-year veteran of NIH and the first woman director of an NIH institute, Dr. Ruth Kirschstein.

She told of her early days as a Clinical Center pathology resident and how after several years at the laboratory bench, she became a lab chief in 1965, and assistant director in 1972 of what



was then NIH's Division of Biologics Standards. Her research career progressed further when the division was transferred from NIH to FDA, where Kirschstein assumed the position of deputy associate commissioner for science. After 2 years there, she missed NIH and decided to return. She contacted some of her former supervisors here, provided her CV and was told there were no open positions here at that time.

However, Kirschstein said, she knew of an opportunity and wasted no time suggesting it. A search committee had been formed to find a replacement for the newly vacated position of director of the National Institute of General Medical Sciences.

"So I asked about the position and was told, 'Oh, I hadn't thought of you for such a position,'" Kirschstein recalled. "So I looked at them and I said, 'Well, why don't you?'" She became the first woman director of NIGMS on Sept. 1, 1974.

"The importance of that story," she said, "is not that I got the position. It's that 20 years ago, by forcing the persons in charge to think about anyone who was qualified—woman, minority, man, whoever—they did so. We must make the system work properly."

That, said panel moderator Dr. Joan Schwartz, chief of the molecular genetics section of NINDS's Clinical Neuroscience Branch, is why the Office of the Director committee on the status of intramural women scientists was formed. Consisting of 12 members—4 men and 8 women—from NIH's intramural science community, the committee sponsored this panel discussion as one of its first orders of business.

Representing NIH director Dr. Bernadine Healy, who was testifying at a congressional hearing, Dr. Vida Beaven, NIH assistant director for program coordination, said Healy "is

supremely committed to the NIH intramural program and to the advancement of women in science, not only women here on NIH's campus but also women in the biomedical sciences nationwide."

Beaven, whose career also began in intramural NIH, cited the institution of "town meetings" to hear firsthand the concerns of the intramural community and the appointment of Office of Research on Women's Health director Dr. Vivian Pinn as evidence of Healy's commitment.

According to numbers presented by Schwartz,

NIH's women scientists with doctoral degrees are underrepresented in top research positions here. A graph showing the number of intramural



men and women in tenured scientific positions NIH-wide indicated that not many women researchers advance past a certain grade level. In fact, the numbers revealed that a declining percentage of women move from GS-13 to 14, even fewer to 15 and almost none to the Senior Executive Service level. GS-12 is the lowest grade level for a doctoral scientist.

In contrast, few men scientists below grade 13 were charted. Approximately 790 male researchers have positions at the GS-13 level or above, while about 175 female researchers occupy such positions.

Schwartz then presented data, obtained by the NIH Office of Education, showing that nearly 51 percent of high school seniors interested in pursuing academic science careers are female. These figures seem to indicate that young women are at least as interested

as men in research as a career. In addition, 35 to 40 percent of medical and graduate school students are women and 20 to 30 percent of medical school faculty or other biological science positions are held by women.

A comparison of the genders in NIH's intramural community showed women trailing significantly: NIH has no women scientific directors. Fewer than 5 percent of NIH lab chiefs and fewer than 20 percent of section chiefs at NIH are women. More than 80 percent of the tenured science positions—lab chief, section chief, tenured investigator, and collaborative investigator—at NIH are held by men.

Schwartz cautioned that the data represent information from only 17 of NIH's 21 institutes, centers and divisions; four remaining ICDs have not yet provided survey responses.

"But the real question is," she continued, "why are the numbers the way they are? The committee's charge is to determine whether there are biases underlying these numbers."

The committee will address several specific issues including the relative pool sizes of women and men for tenure actions, the length of time between promotions for each sex and the possible existence of gender barriers to lab chief or Senior Executive Service positions.

Kirschstein pointed out that the issue of parity for women scientists is far broader than intramural NIH and stretches across the nation. "It is an issue that will continue to be addressed in larger arenas," she said, adding that she has participated in several panel discussions outside NIH with similar topics.

Drawing a spate of applause, another panelist, Dr. Lynn Gerber, chief of CC's rehabilitation medicine department, explained the state of affairs in a nutshell.

"Our country has been extremely

fortunate in being able to tap an extremely rich human resource and mobilize a very well educated, highly motivated and very committed group of people into activities that this country desperately needs," she said. "That is, it's been able to mobilize women at, in my view, below-market value. I think it has done this with very little regard to the protection and preservation of this invaluable resource."

Panelist Dr. Mary Anne Robinson, a senior investigator in NIAID's Laboratory of Immunogenetics, said she would like to see more women scientists in leadership positions.

"As I look beyond where I am now," she said, "I feel less sure of what is to come. I see so few women role models."

Suggesting another area where gender-based research could be focused, Dr. Judith Rapaport, chief of NIMH's Child

Psychiatry Branch, asserted that most of the women in top science positions may have a common link that has

been overlooked before now: spouses who are also high-level researchers.

"Opting for a research career is opting for a much less flexible career," she said, citing the intensity and commitment of a science career. "I submit that, just on the nature of making every hour count, life is often more livable

when two spouses are in the same area" and have the same social circle.

Rapaport's husband is also a scientist.

The self-described most junior member of the panel, Dr. Susan Swedo, a senior staff fellow in NIMH's Child Psychiatry Branch who has not yet attained tenure, characterized her experience

on campus. "At this point in my career I haven't felt hampered because of my femininity," she said. "As a system, NIH is not a discriminatory organization. But perhaps the hierarchical system, where your lab chief has complete control over your destiny, could contribute to sexual discrimination in some cases."

Because lab chiefs are judged by their productivity, she continued, it seems self-defeating for them to hinder their employees' productivity with sexually discriminatory behavior. "But the lack of a network and the fact that unilateral power occurs could present situations where [discrimination] happens."

Swedo said that while actual discrimination or harassment seem rare on campus, sexual improprieties are all too common and have happened to many women here, in her experience. "It doesn't seem to interfere with tenure and promotion," she explained, "but I think it may contribute to the desire to seek a more tolerable career position."

Equating the occurrence of improprieties to the annoying lack of parking, Swedo said, only half-jokingly, "None of us is going to give up a career at NIH because we can't find a stupid parking place if we arrive a couple

(continued on p. 24)



(continued from p. 23)

minutes later than normal, but it certainly contributes to starting your day off wrong, a lack of productivity and really a general feeling of 'There's got to be a better way.'" As examples, she told of interviews in which women were asked if they were planning to get pregnant anytime soon or of male interviewers who told women outright that given the choice between two applicants, one a mother, they would "obviously" choose the one without a child.

Suggesting that NIH strive to be a gender-neutral workplace, Swedo said, "The goal should be that at NIH there are no women scientists or men scientists, but only NIH scientists."

One way to help achieve the goal, she said, is for women to learn to compartmentalize their lives. "When you're at home," she said, "you're at home. When you're at work, you're at work. You need to maintain the same professional barriers that men do."

Finally, Swedo advised women to become aware of not only what is said, but also the way it is said. "The other thing I've noticed is that men demand things and expect things, but women request things," she noted, adding that the nurturing instinct generally ascribed to women does not translate well in the work environment. "We really need to put ourselves first, to be our own best advocates. It's your responsibility to make yourself seen and heard."

Ruda agreed that the two genders often approach their work from different perspectives and there are several reasons for the differences. "Women tend to wait for recognition of their work instead of promoting their professional successes," she said. The female personality tends to be accepting rather than argumentative. Women who do speak out frequently are seen as aggres-

sive whereas men in the same situation are [seen as] strong and outspoken."

The solution, Ruda suggested, is in educating both genders on perceptions of their differences in professional atmospheres and encouraging acceptance of both sets of characteristics.

It is this type of flexibility that Gerber alluded to in her remarks.

"It isn't a question of wanting it all," she said, noting that she has often questioned the drive to be at the so-called "top" in the research community. Traditionally, Gerber continued, women have been penalized in their careers for taking maternity breaks or taking time to care for sick children or elder relatives. As long as the work gets done, she said, and as long as the goal is met, what is the problem?

"People must be permitted to pursue nontraditional career paths in traditional careers," she stressed. "The 8:30 to 5 view is not the only view. We need to focus on productivity. Time out must not remove women from the competition."

As the 75-minute meeting drew to a close, the floor was opened for questions and comments. Moderated by committee member Dr. Monique Dubois-Daleq, chief of NINDS's Laboratory of Viral and Molecular Pathogenesis, the spirited session raised key questions about the way NIH handles sexual discrimination suits levied against the institution. Of particular concern is what some women in the audience called NIH's lethargy in investigating claims and sanctioning offenders.

"This institution protects people who discriminate against women," stated Dr. Maureen Polsby, a former NINDS medical staff fellow who said she has a pending discrimination suit against NIH. She said "dishonestly

investigated" charges and ignored appeals to the "chain of command" make discrimination NIH's biggest problem.

Another audience participant said the problem affects not only men researchers versus women researchers, but also women pitted against women.

Dr. Diana Blithe of NICHD recently had a baby and is currently undergoing the tenure process, which she described as "traumatic" for her. She said two female colleagues told her they would not consider hiring female postdocs because women scientists are generally not as productive as men.

The colleagues, Blithe said, expressed fears that women scientists "would go off and get pregnant or if they actually had children, they would be the ones to stay home when the child gets sick. So [the female colleagues] have decided that male postdocs would be more productive for their careers. I find this appalling."

The comments from Polsby and Blithe drew supportive responses from the assembly, which seemed at once eager to extend what was to have been an hour-long meeting and eager to have it end. Perhaps the best advice from the panel came from one of the most senior and most seasoned women researchers who earlier set the tone of the session.

"We all work together," Kirschstein said. "We women can make it and we are making it. We must be steadfast and persistent. We must arm ourselves with the facts... but most importantly, we must support each other."

Before the meeting began, attendees received a survey requesting suggestions for subsequent forum topics. The committee's next move is to sift through responses from that survey and select a specific subject for an upcoming open seminar.

Good Taste Lasts

Advanced Age, Healthy Mouth Can Coexist

By Carla Garnett

If thoughts of your favorite meal can make your mouth water wistfully now, chances are good that the same thoughts will produce the same result when you get older—if you remain in reasonably good health, according to Dr. Bruce Baum, clinical director of the National Institute of Dental Research, who reported this and other good news during “No Teeth, No Taste and No Spit: Is This What Old Age Means for the Mouth?,” at a Clinical Center grand rounds presentation.

Contrary to common generalizations about aging, he said, there is no evidence that advanced age decreases salivary gland function, or that lessening of gustation (sense of taste) or toothlessness must automatically accompany aging.

“As they age, healthy individuals maintain most functions of the oral cavity,” Baum said, noting that researchers and physicians may see more oral disorders in older populations largely because of the groups’ overall poorer health. He defined healthy individuals for his studies as basically those not being treated for a systemic disease and not taking prescription medications. “Aging and disease are different,” he reminded the audience, “but they are intimately related.”

Baum said disease and some treatments for disease can initiate the onset of a dry mouth, with subsequent tooth loss and swallowing problems, and can lead to changes in the way individuals of any age taste and enjoy foods.

Normal function of human salivary glands is important for a number of reasons, Baum said, including remineral-

ization and repair of the oral tissues, proper swallowing, and prevention of tooth decay and infections. NIDR scientists have found no difference in amount or stimulation of saliva production between different age populations, he said.



Dr. Bruce Baum

In taste studies conducted by NIDR to measure a group’s gustatory responses to four qualities of taste—sweetness, saltiness, sourness and bitterness—few differences between older and younger individuals were found and even then changes were very modest. As with other age-related observations in the oral cavity, Baum said, “statistically, significant changes may be seen, but biologically, changes [with age] are rare.”

Baum emphasized that food enjoyment is dependent not only on adequate gustatory function, but also on such factors as the ability to recognize food temperature and texture, as well as olfactory (sense of smell) function.

In University of Pennsylvania “scratch and sniff” tests conducted in

1984, and repeated in NIDR studies with healthy subjects, on cross-section populations of all ages, olfactory function waned dramatically beginning in individuals at about ages 60 to 70.

“We conclude that while there is no generalized decrease in gustatory function,” Baum said, “there is considerable decrease in olfactory function with age.”

The widely held belief that the teeth are the first to go does not have to be true, he said. Baum showed a compilation of evidence gathered from four national studies of toothlessness. In a 1957 study population of people ages 65 to 74, about 60 percent were found to be toothless, Baum noted. In a similar study done from 1985 to 1986, a dramatic drop in the prevalence of toothlessness—from 60 percent to 38 percent—was documented.

He cited three reasons for the decline in toothlessness: advances in preventive dental practices since the 1950’s, society’s improvement in and attention to modern oral hygiene practices, and water fluoridation, which he called “close to the most effective public health practice instituted in the United States.”

Baum said the 1986 study result was encouraging and confirms his conclusion: “You don’t lose teeth as a normal correlate of growing old. Most of us can look forward to keeping our teeth and oral function for a lifespan.”

According to epidemiologic information Baum presented, 16.7 million Americans, or 9 percent of the United States population, was over age 60 in 1960. He said statistics suggest that by 2040, however, nearly a quarter of the U.S.—22.6 percent, or 68.1 million people—will be senior citizens. Adopting a healthy oral hygiene program early in life, Baum reiterated, can prevent most mouth-related diseases and complaints commonly, but erroneously, associated with aging.

NIH Notes for February —April 1992

HONORS AND AWARDS

Dr. W. French Anderson, chief of NHLBI's Laboratory of Molecular Hematology, received the Meritorious Presidential Rank Award "for his recognized leadership both in terms of the science and the ethics of the rapidly evolving field of human genetic engineering." Anderson was also honored when he and **Drs. R. Michael Blaese and Steven Rosenberg**, both at NCI, delivered the G. Burroughs Mider Lecture Mar. 25 on "Human Gene Therapy" ... **Dr. Vida H. Beaven**, assistant director for program coordination, OD, received the Meritorious Presidential Rank Award "for her personal commitment to administrative innovation, unprecedented vision and leadership of committee management and proven ability to team manage under pressure and difficult circumstances in areas of intense scrutiny" ... **Dr. Doris Bloch** recently received the Chairperson's Award for Meritorious Service to the Nursing Research Community given by the American Nurses Association's Council of Nurse Researchers at its biennial meeting in Los Angeles. Honored for contributions spanning more than 20 years, she is currently special assistant to the director at the National Center for Nursing Research ... **Dr. Samuel Broder**, NCI director, was presented by the National Coalition for Cancer Research a Recognition Award in appreciation of NCI's contributions to the achievements that have flowed from the resources and authorities provided by the National Cancer Act of 1971 ... **Dr. Marvin Cassman**, deputy director at NIGMS, received the Meritorious Presidential Rank Award "for his role in directing the NIGMS \$15 million per year Acquired Immune Deficiency Syndrome (AIDS) research and research training program" ... **Dr. Joseph F. Gallelli**, chief of the Clinical Center pharmacy department, was invited to present a special lecture on "Pharmaceutical Manufacturing and Development in the Pharmacy Department at the NIH," at the 112th annual meeting of the Pharmaceutical Society of Japan in Fukuoka, Japan. He also lectured to the Fukuoka Society of Hospital Pharmacists on the subject of "Hospital Pharmacy in the United States and at NIH" ... **Dr. John L. Gallin**, director

of NIAID's Division of Intramural Research, recently received the Public Health Service Award for Exceptional Achievement in Orphan Products Development. The award recognizes his leadership role in conducting studies that led to a genetically engineered form of a drug that can extend the lives of patients with chronic granulomatous disease (CGD), a rare inherited disease. His work spans more than 15 years and pioneered the way for Food and Drug Administration approval of a bioengineered version of interferon gamma ... **Dr. Eli J. Glatstein** (he resigned from NIH in February 1992—see note under news about NIHAA members), who was chief of the Radiation Oncology Branch, NCI, received a Distinguished Presidential Rank Award "for his leadership in the formation of the nationally recognized Joint Radiation Center Residency Training Program between the National Institutes of Health, the National Naval Medical Center, the Walter Reed Army Medical Center and the Uniformed Services University of the Health Sciences" ... **Dr. Bernadine Healy**, NIH director, was honored at the American College of Cardiology's 41st Annual Scientific Session with a Distinguished Service Award, "because of her outstanding accomplishments which include her dedication to top biomedical research in general, and cardiology in particular" ... **Dr. Suzanne S. Hurd**, director of the Division of Lung Diseases, NHLBI, was given the Meritorious Presidential Rank Award "for her outstanding leadership in building a national pulmonary research program that has contributed significantly to the improvement of the health of the nation" ... **Dr. Anton M. Jetten**, an NIEHS biologist, has been awarded a 3-year \$195,000 grant by Johnson and Johnson to continue his research on the regulation of differentiation in lung and skin in relation to various disease processes including cancer. The award, along with a plaque, was presented during the company's Annual Focused Giving Scientific Symposium in New Brunswick, N.J. ... **Dr. Brian W. Kimes**, the associate director for Centers, Training and Resources, NCI, received the Meritorious Presidential Rank Award "for his sustained leadership and success in developing several critical programs of national significance and high political visibility at NCI" ... **Dr. Ruth L. Kirschstein**, NIGMS director, was recently elected a fellow of the American Academy of Arts and Sciences. She was honored for her contri-

butions in the areas of educational and scientific administration ... **Dr. Claude B. Klee**, chief of the Laboratory of Biochemistry, NCI, received a Meritorious Presidential Rank Award "for her important discoveries regarding mechanisms involved in calcium regulation of cell growth that have contributed to our understanding of abnormal growth in cancer" ... **Dr. Hynda Kleinman**, chief of the cell biology section in NIDR's Laboratory of Developmental Biology, has received the Senior Award from Women in Cell Biology for "her scientific achievement and her strong commitment to the fostering of women in science" ... **Dr. Claude J. Lenfant**, NHLBI director, received a Distinguished Presidential Rank Award "for his outstanding leadership in initiating, strengthening and broadening the clinical impact of NHLBI programs through his dynamic, imaginative and innovative stimulation of fundamental research within the purview of the Institute, and for his role in fostering effective national and international cooperation to these ends" ... **Dr. Harald Loe**, NIDR director, received a Meritorious Presidential Executive Rank Award "for his emphasis on health promotion, science and information transfer, that has given high priority to conveying the excitement and importance of dental research to the profession and the public." He also received both an Award of Recognition from the National Foundation for Ectodermal Dysplasia and the 1991 Carl A. Schlack Award from the Association of Military Surgeons of the United States ... **Norman D. Mansfield** (see obituaries), associate director for research services, Office of Research Services, received a Meritorious Presidential Rank Award "for his imaginative efforts in solving problems, saving millions of dollars, and in providing the Institutes a safe, effective environment to pursue their research missions" ... **Dr. Clarice D. Reid**, chief of the Sickle Cell Disease Branch, NHLBI, received a Meritorious Presidential Rank Award "for her sustained outstanding leadership in establishing programs throughout the country in sickle cell disease. Also, under her direction, research initiatives have served to mobilize the entire field of molecular genetics" ... **Dr. William H. Theodore**, chief of the NINDS Clinical Epilepsy Branch, received the American Epilepsy Society's \$50,000 Research Recognition Award for developing "one of the pioneering laboratories for the study of cerebral blood flow and

metabolism using positron emission tomography in patients with epilepsy" ... **Dr. Thomas A. Waldmann**, chief of the Metabolism Branch, an intramural component of NCI, was presented Apr. 9 the 15th annual Bristol-Myers Squibb Award for Distinguished Achievement in Cancer Research. He received a silver medallion and \$50,000 as an unrestricted scientific prize for his landmark contributions to understanding of the immune system. His studies have led to promising new ways to use monoclonal antibodies to treat leukemia, lymphomas, and autoimmune diseases, and have contributed to the prevention of organ and bone marrow transplant rejection ... **Dr. Michael D. Walker**, director of the Stroke and Trauma Program, NINDS, received a Meritorious Presidential Executive Rank Award "for his significant career achievements including the development of a 10-year plan for the implementation of the 1990's 'Decade of the Brain' proclamation by the Congress and the President."

APPOINTMENTS AND PERSONNEL CHANGES

Dr. Rita Anand, formerly with NIAID and a widely regarded expert in AIDS research, has moved to the Division of Research Grants as scientific review administrator of the virology study section. The section is one of DRG's 83 chartered study sections that are responsible for initial peer review of most of the approximately 31,000 grant applications seeking funding from NIH each year ... **Dr. Lewellys F. Barker**, former senior vice president and chief medical officer of Blood Services and Health Services at the American Red Cross from 1978 to 1990, has been selected associate director of the Clinical Research Program in NIAID's Division of AIDS ... **Thomas M. Bedick** has been named chief of the NIEHS Facilities Engineering Branch. He is responsible for maintenance, operation, and renovation of NIEHS' more than 25 buildings, including the 334,000-square-foot laboratory and office complex, Bldg. 101, and the NIEHS South Campus support center. He will also be involved in coordinating the consolidation of modules so that the NIEHS staff will be on one campus ... **Dr. Norka Ruiz Bravo**, a scientific review administrator in NIGMS' Office of Review Activities, was appointed a program administrator in the Genetics Program Branch, NIGMS. She

will now administer grants relating to the molecular mechanism of gene control ... **Dr. L. Jackson Brown** has been appointed director of the Epidemiology and Oral Disease Prevention Program at NIDR. He first came to NIDR in 1984, serving first as the evaluation officer, and most recently, as chief of the Analytical Studies Branch. The epidemiology program is expanding to study not only the prevalence of dental and oral diseases, but also to conduct research on the social and economic factors as well as the basic biological processes that contribute to orofacial diseases and conditions ... **Dr. Bill Bunnag**, health scientist administrator at NCRR, has moved to DRG's Referral and Review Branch, where he will serve as administrator of initial peer review for special study sections ... **Dr. Alison Cole** has joined the NIGMS staff as a program administrator in the Pharmacological Sciences Program. She will handle research and training grants in anesthesiology. She comes to NIGMS from Johns Hopkins University, where she served as a research associate in the department of neurology ... **Dr. George W. Counts**, chief of the Clinical Research Management Branch in the Treatment Research Operations Program of the Division of AIDS, has also been named NIAID assistant director for minority affairs ... **Dr. James F. Deatherage**, formerly an assistant professor in the department of biochemistry at the University of Arizona in Tucson, has recently joined the staff of NIGMS as a health scientist administrator in the Cellular and Molecular Basis of Disease Program Branch. He will administer grants relating to cell organization, motility, and division ... **Dr. William R. Duncan** has been named associate director of the Treatment Operations Program in NIAID's Division of AIDS. He returns to NIAID after holding the position of director of research at the National Cancer Institute of Canada from 1990 to 1991 ... **Stephen A. Ficca** has been named acting NIH associate director for research services. He replaces Norman Mansfield (see obituaries). Ficca has spent 21 years in administrative management at NIH, most recently as executive officer of NHLBI ... **Anne Marie Gillen**, chief, Assistance and Review Branch, Office of Small Purchase Policy, Acquisitions Management, is now the deputy executive officer, Office of Research Services. For 7 years she was an administrative officer at NCI ... **Dr. Michael M. Gottesman**, chief of NCI's Laboratory of

Cell Biology in the Division of Cancer Biology, Diagnosis, and Centers, has been named acting director of the National Center for Human Genome Research. He replaced Dr. James Watson who resigned Apr. 10 ... **Marilyn Harrison** has been named chief administrative officer at the Division of Computer Research and Technology. She comes to DCRT from the Office of the Associate Administrator of Communications, Health Care Financing Administration, where she was executive officer. The NIH campus is not new to her, since she spent a number of years as administrative officer for the Division of Lung Diseases, NHLBI ... **Dr. Margaret I. Johnston** has been named associate director for the Basic Research and Development Program in NIAID's Division of AIDS. She joined NIH in 1987 and since then has served as chief of the Developmental Therapeutics Branch, chief of the targeted drug discovery section and program officer within the division ... **Dr. Nancy S. Lamontagne**, program director for NIDDK's Metabolism and Cystic Fibrosis research programs, has moved to DRG's Referral and Review Branch as a scientific review administrator of the molecular and cellular biophysics study section. The section consists of 18 leaders from the scientific community, and is responsible for the initial scientific merit review of grant applications submitted to NIH for research support in physical chemistry and other broad areas of molecular and cellular biophysics ... **Dr. Louis H. Miller** has been appointed to head the new Laboratory of Malaria Research, NIAID. The laboratory will conduct basic research, particularly on the disease-causing organism and the mosquitoes that carry them, as well as drugs to treat and vaccines to prevent the disease. Together, the new malaria laboratory and the Laboratory of Parasitic Diseases (the malaria research section which Miller headed used to be part of it) comprise the recently formed Intramural Center for Tropical Disease Research, directed by Dr. Franklin Neva, who also heads the Laboratory of Parasitic Diseases ... **Dr. Marshall Plaut** has been named chief of the Asthma and Allergy Branch within NIAID's Division of Allergy, Immunology, and Transplantation. The branch supports studies on the causes, development, prevention, and treatment of asthma and allergic diseases, including hay fever, hives, and reactions to food, insect stings and drugs. He was an associate pro-

fessor of medicine at Johns Hopkins School of Medicine, where he started as an instructor in 1974. In addition to his NIAID appointment, he will continue to teach at Hopkins as an adjunct associate professor in the division of clinical immunology ...

Johanna Schneider has been selected by Dr. Bernadine Healy to be senior advisor for media relations and press secretary. She will advise the NIH director on media activities and communications strategies. She is an 11-year veteran of Capitol Hill and a former news reporter, and most recently was deputy assistant secretary for public affairs in the Department of Labor. She also served as press secretary to House Republican Leader Robert H. Michel from 1985 to 1989 ... **Jorge R. Urrutia** has been appointed director of the Division of Engineering Services. He is the first Hispanic at the SES level at NIH. He has worked for several agencies during his 15 years of government service. Before coming to NIH, he headed a program that was organizationally equivalent to DES for the National Institute of Standards and Technology. He lists the Natcher Bldg. and the infrastructure modernization program as two of the most important projects ahead ... **Dr. Nadarajan A. Vydelingum**, from the Memorial Sloan-Kettering Cancer Center and Memorial Hospital for Cancer and Allied Diseases in New York City, is the new scientific review administrator of special study section 8 in DRG's Referral and Review Branch. Before coming to NIH, he was since 1986 director of research and administrator in the laboratory for surgical and metabolic research, department of surgery, Sloan-Kettering Cancer Center.

RETIREMENTS

Vivyan "Kim" Barrett retired recently after three decades as a supervisor and biologist for the Research Analysis and Evaluation Branch (RAEB) of NCI. This branch serves as a centralized source of official information on NCI-supported research. In 1950, she went to work at NCI in Dr. Howard Andervont's laboratory in Bldg. 6, where she studied breast cancer tumors in mice. She developed an allergy to the mice she was testing, and was forced to give up her experiments. She took time out for her family and in 1963 began to work in RAEB in the Westwood Bldg., where she has worked ever since. She plans to spend her retirement enjoying her grand-

children and taking long walks on the C&O canal near her home ... **Jane Kestner** retired on Jan. 31 after 35 years of service in the Clinical Center's clinical pathology department. She joined the clinical laboratories in 1955, 2 years after the CC began admitting patients, and with just two brief interruptions, continued there as a research technologist ... **Dr. Harold Roth**, a veteran of 49 years of government service and former director of NIDDK's Division of Digestive Diseases and Nutrition, retired recently. He came to NIH in 1974 as NIDDK's associate director for digestive diseases. In 1983, he was named director of the Division of Digestive Diseases and Nutrition, and later became Epidemiology and Data System Program director. As a researcher, he studied the relation of diet and bile composition to gallstones, and treatment of peptic ulcer. Now as senior gastroenterologist emeritus at NIDDK, he plans to collaborate with the Patient Record Institute, an organization devoted to putting the medical record of every American on a small disc or card ... **Leonard Stuart** has retired from NIH after 27 years of caring for horses, burros, cows, sheep, goats, and miniature pigs at the NIH Animal Center, NCRR, near Poolesville, Md. He has headed the "ungulate" (hoofed animal) unit at the center, performing and overseeing procedures in biomedical research and animal care. He is planning to specialize in fishing and whitewater canoeing in his retirement, but he will continue to work with farm animals ... **Charles Turner** retired from the Cell Biology and Metabolism Branch, NICHD, after serving the NIH community for nearly 38 years. In 1954, he came to work as an animal caretaker in Dr. Roy Hertz's laboratory. He credits Hertz with getting his career off to a good start—when he was only 23, one of the first tumor cells lines to be established, the Erwin-Turner choriocarcinoma cell line, was named after him and his colleague Howard L. Erwin. He spent 14 years in Hertz's laboratory, becoming a much sought-after expert in tumor transplantation. For several years he managed the large primate colony of the former Pregnancy Research Branch, NICHD, where he developed managerial skills that allowed him, in 1984, to accept the unusual position of "laboratory manager" in the newly founded Cell Biology and Metabolism Branch. During his NIH career he has witnessed the great transition in emphasis from animal work to molecular

biology that has taken place. He commented that the only "thing that hasn't changed is the parking at NIH". He won't have to deal with it any more since he is retiring to the wilds of the Virginia mountains ...

Sarah "Sally" Young retired from the Clinical Center nursing department recently. Her professional nursing career spanned 37 years with more than 30 years at the CC. She came to NIH in 1961 and joined the cancer nursing service as a clinical nurse. Her last position, since 1982, was a clinical nurse on the aging research nursing service on floor 6D. She was sought out by coworkers and others within the department as a role model and lecturer in gerontological nursing. She is looking forward to enjoying her retirement at her house on the Chesapeake Bay.

DEATHS

Dr. Arley T. Bever, Jr., 69, a biochemist and retired official of the National Science Foundation, died Mar. 22 at the Woodbine nursing center in Alexandria after a heart attack. He came to the Washington area in 1963 and worked at NIH as a research grants director for 4 years. He left NIH to join NSF, where he became deputy director of the foundation's experimental research and development incentives office. He retired for reasons of health in 1975 ...

Arthur J. Broering, 59, an architect who was an official of NLM, died of cancer Mar. 15 at Georgetown University Hospital. He had worked at NIH for 30 years. He had retired in January as deputy director of NLM's extramural programs, which provide grants to outside activities related to the library. He had been named to that position in 1974. Previously he was an architect in the NIH Health Research Facilities Branch and a construction officer at the library and chief of its resource division ... **Dr. Robert Cooper**, 59, director of the University of Rochester Cancer Center, died Mar. 19 at Strong Memorial Hospital of a heart attack. In 1974, he was involved in establishing the Rochester cancer center, which was one of the first regional cancer centers created as a result of the National Cancer Act of 1971. The center, which provides cancer care through community hospitals, became the model for other cancer centers. At NIH he served on many advisory panels including NCI's Division of Cancer Prevention and Control Board of Scientific Counselors and the cancer center

support grant review committee ... **Dr. Albert Joseph Dalton**, 86, a retired researcher and administrator at NCI and an authority on the structure, life cycles and pathology of cells, died of heart and lung ailments Mar. 2 at Randolph Hills Nursing Home in Silver Spring. In 1941, he moved to the Washington area and went to work at NCI. A cytologist, he studied the structures of cells, and for a period he administered grants in the field of molecular biology. He was coordinator for ultrastructural studies in viral oncology when he retired in 1975 ...

Dr. Herbert Dickerman, 63, director of the Wadsworth Center for Laboratories and Research of the New York State Department of Health, died Dec. 23, 1991. He was at NIH from 1963 to 1966 as a clinical investigator in biochemistry at the National Heart Institute ... **Dr. Graceann Ehlike**, 49, an oncology nurse specialist who had been an assistant professor of nursing at George Mason University from 1983 to 1990, died of cancer Mar. 1 at her home in Burke. In 1981, she joined the staff at NCI, but she left to join the faculty at Charles County Community College before working at George Mason. In 1990 and 1991, she was a program analyst at R.O.W. Sciences Inc., in Rockville. She joined the credentialing center of the American Nurses Association in 1991, but retired because of illness ...

Hazel Peterson Gump, 79, a retired research biologist with NCI, died of cancer Apr. 14 at a hospital in her native Clinton, N.C. She moved to Clinton from Bethesda when she retired in 1972 ... **Edythe Garber Hayes**, 79, a retired statistician with NIH, died Mar. 12, at her home in Falls Church. She had Parkinson's disease. She was a statistician starting in the 1940's until she retired from NIH in 1974 ... **Robert Hudson**, 44, died on Feb. 11 of non-Hodgkin's lymphoma. He was diagnosed with cancer in September 1991 and had retired in January of this year due to his illness. He was a grants management specialist in NEI's Extramural and Collaborative Program for more than 13 years ...

Dr. Gerald L. Klerman, 63, a psychiatrist and expert on depression who was a former chief of the Alcohol, Drug Abuse and Mental Health Administration from 1977 through 1980, died on Apr. 3 of kidney disease at New York Hospital-Cornell Medical Center in Manhattan. He also worked for 2 years as a researcher at NIMH in the early 1960's. After 1980, when he left his government position, he was a professor of psychiatry and vice chairman of

research at Cornell Medical College and New York Hospital and a psychiatrist at the affiliated Payne Whitney Psychiatric Clinic ... **Dr. Corine Layet**, 31, visiting associate in NIAID's Laboratory of Immunology, died Jan. 30 after being struck by a car on Old Georgetown Rd. The accident occurred while she was walking home from work at about 6:20 p.m. Her sudden and tragic death shocked and saddened the NIH community where in the short time she had worked at NIAID she had an impact scientifically as well as personally. She was a visiting fellow in the lymphocyte biology section in the Laboratory of Immunology ... **Grace Libby**, 90, a stenographer at NIH from 1950 to 1962, died of congestive heart failure Apr. 14 at a hospital in Lewiston, Me. ... **Norman Mansfield**, 57, who retired as NIH associate director for research services on Feb. 1 after more than 33 years in government service, died of cancer May 13 at his home in Potomac. As associate director, he was responsible for providing support services such as engineering, safety, security, space and facility management and printing and mail for NIH's 320-acre Bethesda campus and nearby leased facilities. He came to NIH in 1975 as director of the Division of Financial Management, a position he held until he was promoted to NIH associate director in 1988. A colleague who worked with him said that he often looked to Mansfield as "a model of professionalism and dignity and a source of sound analysis and good advice" ... **Barbara Ryder Marple**, 64, a registered nurse who worked for home health-care organizations in Annapolis, died of cancer Feb. 12 at Anne Arundel Medical Center. From 1957 to 1961, she worked as a nurse at NIH ... **Dr. William McGuire**, 54, died Mar. 25 of an apparent heart attack in Cozumel, Mexico. From 1966 to 1969 he was a clinical associate at NCI in the Laboratory of Endocrinology. He then went to San Antonio and in 1975 became chief of the oncology division at the University of Texas Health Science Center at San Antonio, where he specialized in breast cancer research. His work focused on prognostic factors in recurrent breast cancer ... **Dr. Samuel Moss**, 77, a retired grants administrator at NIH, died of a heart attack Feb. 20 at Montgomery General Hospital. He retired in 1978 after working 22 years as a grants administrator and chairman of the human embryology studies section in the Division of Research Grants. He was a bovine fertility researcher at the

Beltsville Agricultural Research Center before joining NIH in 1955 ... **Dr. Morris Rosenberg**, 69, a professor of sociology at the University of Maryland and a former section chief at NIMH, died of lymphoma Feb. 14 at Sibley Memorial Hospital. In 1956, he moved to the Washington area and went to work at NIMH, where he was chief of its section on social studies in therapeutic settings until 1975 when he joined the faculty of the University of Maryland. He taught there until his death. His research examined how social factors affect the way people see themselves ... **Dr. Arnold E. Schaefer**, 74, former chief of the interdepartment committee on nutrition for national defense, which was part of NIAMD, died Feb. 17 in Omaha, Neb., of pneumonia. When he was at NIH from 1955 to 1970, he conducted nutrition surveys and research in more than 30 developing countries, including Latin America, as well as the first large-scale nutritional survey of the United States ... **Rudolph Valentino Shaw**, 34, a purchasing agent in NHLBI's Administrative Services Branch, died Mar. 7 of cancer. He began working at NLM as a clerk when he was a teenager. Three years later, he transferred to the FDA, returning to NLM not long after and entering the NIH Upward Mobility Program. He left the government in 1986, but returned to NIH in June 1989 to take a job with NHLBI handling all procurement for several institute offices including the director's ... **Dr. Kenneth A. Simon**, 61, a Bethesda ophthalmologist, died of a brain tumor Feb. 13 at the Potomac Valley Nursing Home in Rockville. He served on the medical staff of NIH for 2 years before opening a private practice in ophthalmology in Bethesda in 1963 ... **Dorothy Laughlin Werner**, 74, a retired grants assistant at NIH, died of cancer Mar. 18 at her home in Washington. She joined NIH in 1959 and was assigned to the Division of Research Grants. She retired in 1979 ... **Edwin C. Whitehead**, founder of the Whitehead Institute of Biomedical Research, died on Jan. 26 of an apparent heart attack. He was an entrepreneur who made a fortune developing scientific and clinical equipment, and who became a major supporter of biomedical research. He was involved in establishing Research!America, an alliance of organizations dedicated to increasing government and private funding for biomedical research. He gave to NIH in June 1988, "Sky Horizon," a sculpture created by Louise Nevelson.

NIH Retrospectives



Spring 1952

NIH held a practice run on Thursday, May 22, with a series of civil defense drills in the event of an atomic attack, demonstrating how the facilities could be used as an emergency hospital ... More than 2,200 persons visited Bldg. 13 for NIH's Research Equipment Exhibit on May 20-22 where a broad array of equipment was displayed by approximately 75 manufacturers ... NIH's own softball team has been active for a month as a member of the District Athletic League. According to its manager, Clarence Israel, the team shows real promise and poses a threat to other teams in the league.



Spring 1962

An Oriental plane tree "descended" from a famous tree on the Greek Island of Cos in the eastern Mediterranean Sea was planted on the grounds of the National Library of Medicine on Friday, May 11, 1962, at 11 a.m. ... The R & W Hamsters production of "Li'l Abner," will be presented in the Clinical Center Auditorium ... Dr. H. Trendley Dean, 68, former NIDR director, died in Chicago on May 13 ... "Man Against Cancer," an exhibit commemorating the 25th anniversary of the National Cancer Act of 1937 and the first nationwide educational and fund-raising drive

of the American Cancer Society, was formally dedicated at Seattle's World's Fair, May 28 ... A new group of 123 physicians will report to NIH on July 1 to begin training in research as clinical fellows, clinical associates, and research associates. Over 1,200 inquiries were received, 250 applications were processed and 123 accepted.



Spring 1972

For outstanding contributions to the progress of medicine and health, NIH received the Edward R. Loveland Award from the American College of Physicians ... On May 19, the National Institute of Arthritis and Metabolic Diseases was renamed the National Institute of Arthritis, Metabolism, and Digestive Diseases.

Drs. Carl Baker and Walter Heston identified two of the four people in the last mystery photograph as Dr. W. Ray Bryan and Vernon Riley. They were working on lymphomatosis in chickens. It was taken in 1944 by Roy Perry. Here is another photo about which National Library of Medicine prints and photograph curator Lucinda Keister needs information. Does anyone remember the details in the photo? Please send information to *Update*.



The NIH Record

U.S. Department
of Health,
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of
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Spring 1982

A process for the total synthesis of medically important opium derivatives has been developed by Dr. Kenner C. Rice, research chemist in the section of medicinal chemistry, Laboratory of Chemistry, NIDDK. Drs. Ira H. Pastan, chief, Laboratory of Molecular Biology, NCI, and William E. Paul, chief, Laboratory of Immunology, NIAID, and Erminio Costa, chief, Laboratory of Preclinical Pharmacology, NIMH, were elected to the National Academy of Sciences ... Dr. James B. Wyngaarden, NIH director, announced the appointment of Dr. Lester B. Salans as director of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases and Dr. Mortimer B. Lipsett as director of the National Institute of Child Health and Human Development.

Attention

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update*.

Name _____

Home Address _____

Home phone _____

News. Include dates/position at NIH and photo if possible.

Suggestions for newsletter or NIHAA.

Update on NIHAA Committees

Nominating Committee Reports Board of Directors Results

The nominating committee headed by Calvin Baldwin, Jr. announced at the May 19 board of directors meeting of the NIH Alumni Association the following results: Elected to the board for a 3 year term are: Dr. Peter Condliffe, Dr. Marguerite Coomes, Dr. Gio B. Gori, Joseph Keyes, Jr., Dr. Paul Parkman, Dr. Joseph Perpich, Dr. Marvin Schneiderman, Susanne A. Stoiber, Dr. John P. Utz, and Storm Whaley.

NIHAA History Committee Wants You

The NIHAA has established a new committee to work with the NIH historian, Dr. Victoria Harden, to develop some histories of the people and programs that were in existence in the early years of NIH, continuing into the period after the move of the laboratories to Bethesda, the activities during World War II, and the decade immediately following.

Dr. Leon Jacobs has been appointed chairman. Other members of the committee are Drs. Herman Kraybill and Jack Davidson. The committee would be most appreciative of suggestions regarding individuals who could contribute information about these early years, either in writing or in the form of oral interviews.

Jacobs said, "We want to encourage everybody who was around in the 'good old days' to help us record the developments and accomplishments of all the parts of NIH and the memorable characters who pursued the goals of protecting the public health."

All alumni are encouraged to send in suggestions for historical projects and to identify colleagues who could contribute information or leads concerning the scenarios and the players on the various early stages of NIH and its antecedent laboratories in Washington and elsewhere.

The committee would also like to facilitate the donation of NIH memorabilia to the Stetten Museum and photographs to NLM's prints and photographs collection.



If You Are Not Yet A Member of the NIHAA [Clip and mail]

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from _____ to _____ (Years)	My membership dues of \$ _____

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Type	Annual Dues
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NIH Alumni are people who have worked or studied at NIH. Present NIH staff are invited to join as associate members.

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NHLBI Symposium Honors Nirenberg, 25 Years of Genetic Research

By Louise Williams



Celebrating 25 years of genetic research were (from l) Dr. Edward Korn, director of NHLBI's Division of Intramural Research; Dr. Marshall Nirenberg, chief of NHLBI's Laboratory of Biochemical Genetics and symposium honoree; NHLBI director Dr. Claude Lenfant; and NIH director Dr. Bernadine Healy.

Director Holds Retreat **Strategic Plan for NIH's Future Nears Consensus**

By Rich McManus

The strategic plan for NIH, conceived as an outline for critical opportunity areas of science and technology, the nation's critical health needs and the responsible management of future fiscal and intellectual resources at the agency, came a step closer to realization July 15-16 as 65 NIH officials and advisers met on campus to hone the as-yet untitled blueprint.

A process that began 8 months ago and was first unveiled last February in San Antonio before being road-tested in five U.S. cities—where it gathered considerable public comment—the strategic plan makes explicit NIH's mission, goals, philosophy and objectives.

"This document must evolve and be dynamic over time—we must revisit it periodically," said NIH director Dr.

(See *Strategic Plan* p. 2)

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He never took the podium—did not utter even one word—yet Dr. Marshall Nirenberg remained center stage throughout the recent 2-day NHLBI-hosted symposium held in his honor.

The symposium, "Genes and Development: 25 Years After Deciphering the Genetic Code," marked the anniversary of Nirenberg's pioneering achievement. Chief of the NHLBI Laboratory of Biochemical Genetics, he broke the 64-word code for amino acids, work that won him the 1968 Nobel Prize for Physiology or Medicine.

The symposium was organized by two NHLBI scientists: Dr. Alan Peterkofsky, deputy chief of the Laboratory of Biochemical Genetics, and Dr. Edward Korn, director of the Division of Intramural Research.

(See *Nirenberg* p. 16)

Fauci Presents New Insights into HIV Pathogenesis

By Greg Folkers

The symptomless stage of HIV infection, sometimes referred to as clinical latency, is actually a time of the continuous presence and high level replication of HIV in the lymph nodes, according to recent studies carried out in the Laboratory of Immunoregulation, NIAID.

Laboratory chief and NIAID director Dr. Anthony S. Fauci presented the findings in a state-of-the-science lecture, "The Immunopathogenic Mechanisms of HIV Infection," at the recent VIII International Conference on

(See *Fauci* p. 22)

Strategic Plan (continued from p. 1)

Bernadine Healy, who chaired the recent retreat. "It is a living, breathing document which we will evaluate to find out where it missed the mark, where the gaps are, and where it was right."

Far from seeking to manage the future of an essentially unpredictable enterprise, the plan "should loosen the system up and provide more flexibility, not less," said Healy. "There is great harm in perceiving the document as set in concrete."

Some 2,000 individuals have contributed to the plan since its inception, she reported, and even more will weigh in as preprinted fax message forms regarding the plan were attached to the July 17 issue of *Science* magazine.

"We will deal very seriously with the responses that come in," Healy assured. "The continual input of the community is the only way to make (the plan) work, and to make it right."

The first draft of the plan comprised about 800 pages of text, said Dr. Jay Moskowitz, NIH associate director for science policy and legislation. The plan is now about half that size, and will be further whittled to around 100 pages when it is submitted to PHS and HHS for approval this fall.

"It is still a guidance document," said Moskowitz, adding that constituency groups and biomedical colleagues still have input into the plan.

Conferees spent July 16 in public session in Wilson Hall, picking over the wording and emphases in the newest draft. Garnering most attention were the six trans-NIH objectives forming the plan's core. While most of the draft language gained general agreement, changes were suggested as members performed the difficult task of editing-by-committee.

Of the six objectives—critical science and technology, critical health needs, intellectual capital, research capacity, stewardship of public



NIH director Dr. Bernadine Healy summarizes the accomplishments of her recent 2-day retreat on NIH's strategic plan, which she termed a "living breathing document" to guide NIH in the future.

resources, and public trust—the latter category, which includes communicating with the public, prompted most comment by Healy.

"The public should be sensitized to the fact that NIH funds many of the big breakthroughs gaining media attention at the grantee institutions," she said.

Healy called a recent visit to NIH by Maryland Governor William Schaefer "unbelievably productive—the most amazing thing was that he was so touched and moved by what he saw here."

Healy called on NIH to realize that its campus is really the entire country, and to broaden its effort to reach out into the

population using the best available means.

Healy divulged innovations of her own in reaping comment on NIH's strengths and weaknesses. For example, the study sections that come to campus several times each year to review research proposals have been given the additional task of critiquing the peer review process itself, she said.

"It doesn't cost any extra money to get this advice, but it has very important consequences for how we do our job and fulfill our mission," she explained.

Particularly valuable to her is what Healy calls her "rolling roster"—anyone who signs in at relevant meetings can be called in for "ad hoc advice on thorny issues. It's been unbelievably valuable to me as a means of getting quick input from the extramural community," she said of these one-time, informal consultations.

"We're really trying to make this your NIH, and to have no secrets," she said. "We can't have a passive scientific community." As long as the comments are polite, Healy said, she welcomes input to the strategic plan.

"The end result (of strategic planning) might not be perfect," she concluded, "but NIH will be better for it."



NCI director Dr. Samuel Broder (l) makes a point during discussion of plan details. Listening is Dr. John Diggs, NIH deputy director for extramural research.

Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814, (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or suggestions, please drop a note to the editor. We reserve the right to edit materials.

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The Changing Face of NIH

FDA Expands Bldg. 29 Again; Completion Set for '94

By Anne Barber

The Food and Drug Administration (FDA) continues to add onto Bldg. 29. 29A was completed in 1966. Now, there will be a 29B. The groundbreaking for 29B took place in January and construction started immediately afterwards. Completion is scheduled for spring 1994.

Richard Albrecht, deputy director, Office of Management for FDA's Center for Biologics Evaluation and Research (CBER), which is scheduled to move into the new building, says, "In the beginning, we thought we would be able to bring more staff over. We wanted to bring the 85 people located in our off-campus research center located on Nicholson Lane in Rockville—the Division of Product Quality Control and Division of Transfusion Science—but we ran out of space before we could get them into the building.

"At this time, we are planning to move

to Bldg. 29B the two divisions that are AIDS-related—Division of Virology and the Division of Hematology—along with the CBER director and administrative staff. Originally all related AIDS programs including vaccines and biological testing were projected to move into the new building. But, we ran out of space." The projected staff occupancy is for 190 people.

"29B will be a 5-story brick office and laboratory building," says Roy Jenkins, DES project officer. "The design will be similar to Bldg. 49—the Child Health and Neurosciences Bldg., named after Rep. Silvio O. Conte (see story in next issue)—in that the offices will be kept separate from the labs." A pedestrian corridor will extend around the perimeter of the building with access to each lab. A service utility corridor, located in the center of the building, will also provide another entrance to the laboratories.

(See Bldg. 29 p. 4)



This is an artist's rendering of Bldg. 29B, a 5-story brick office and laboratory building that is an addition to the FDA's Bldg. 29 and 29A. Completion is scheduled for the spring of 1994.

Bldg. 29 (continued from p. 3)

The building abuts the west wall of 29A at the corner of Convent and Lincoln Drives. Convent Drive is now partially closed and will remain closed until the spring of 1993 due to the construction.

Albrecht states, "There will be small animals housed in the basement of 29B, as well as some remaining in 29A."

The new building will be constructed in two phases. Phase 1, which is in progress, involves relocating exterior utilities, building the reinforced concrete frame and erecting the exterior enclosure. Phase 1 is scheduled for completion in March 1993.

Phase 2 is the finishing of the interior of the building such as rooms, partitions, air conditioning, etc., and is expected to be completed by March 1994.

The total appropriated budget for the new project is \$28.5 million, of which \$5 million has been allocated for a new 5,000-ton chiller at the central chilled water plant to support this facility.

A Stampede of Zebras by Dr. Robert G. Martin (Laboratory of Molecular Biology, NIDDK), a play about scientific fraud that is being used as material in the bioethics courses of nearly two dozen universities, will premiere at St. Mary's College, St. Mary's City, Md., Oct. 15-25. (Box office 301-862-0243). The college will transport the production to Alexandria, Va., for ten performances only, at the American Showcase Theatre, Jan. 2-10, 1993. Tickets for the American Showcase Production will be available at reduced rates for NIHAA members. For further information call (301) 530-0567.

Calendar of Exhibits and Upcoming Events

AUGUST-DECEMBER

An exhibit on *Mind and Body: Rene Descartes to William James* will be on display in the front lobby of the NLM (Bldg. 38, 8600 Rockville Pike) until Dec. 15, 1992. The display has been mounted by the National Library of Medicine in collaboration with the American Psychological Association in honor of the centennial celebration of the association. There is a catalogue accompanying the exhibit that may be obtained by writing to the Chief, History of Medicine Division, NLM, 8600 Rockville Pike, Bethesda, MD 20894. For more information about the exhibit call the History of Medicine Division, NLM, (301) 496-5405.

OCTOBER-APRIL

The Foundation for Advanced Education in the Sciences, Inc. will celebrate its silver anniversary with nine concerts during the 1992-93 season.

The concert dates are:

Oct. 11—Jean-Louis Steuerman, piano
Nov. 1—Auryn String Quartet
Dec. 6—Takacs Quartet
Jan. 3, 1993—Mischa Maisky, cello
Jan. 17—I Solisti, Italiani with Gary Stocker, flute
Jan. 31—Cherubini Quartet
Feb. 14—Zoltan Kocsis, piano
Mar. 14—Andras Schiff and Yuuko Shiokawa
Apr. 18—Robert Holl, baritone

Concerts are held on Sundays at 4 p.m. in Masur Auditorium, Bldg. 10. Tickets are required. For more information call (301) 496-7976.

OCTOBER-NOVEMBER

Medicine for the Public:
Oct. 13—Ovarian Cancer: Current Treatment Options
Oct. 20—Menopause
Oct. 27—Toward Heart Health: A Cholesterol Update
Nov. 10—Sexual Transmission of AIDS: Are You at Risk?
Nov. 17—Cystic Fibrosis
Nov. 24—Gaucher Disease: Restoring Health with Enzyme Replacement

A lecture series on health and disease by NIH physicians and scientists sponsored by the Clinical Center, NIH. The lectures are held on Tuesday evenings from 7 to 8 in Masur Auditorium, Bldg. 10. For information call (301) 496-2563.

NOVEMBER

Monday, Nov. 2, 1992—A symposium to honor Dr. Christian B. Anfinsen (see page 8 for details). Following the symposium there will be a reception in the NIH Visitor Information Center, located on the B1 level of Bldg. 10, to which all NIHAA members are invited.

JANUARY 1993

The G. Burroughs Milder Lecture will be Tuesday, Jan. 26, 1993, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker will be Dr. Judith Rapoport, chief of NIMH's Child Psychiatry Branch. She will speak on "Child Psychiatry and the Brain."

For more information about various lectures and events at NIH, call (301) 496-1766. For information about NIHAA call (301) 530-0567.

Stetten Museum Opens New Exhibit

In September, the DeWitt Stetten, Jr. Museum of Medical Research opened a new exhibit entitled, "The World of Medical and Scientific Instruments." The exhibit and copies of the accompanying brochure are located in the hallway between the main lobby and Lipsett amphitheater in the Warren Grant Magnuson Clinical Center, (Bldg. 10, 1st floor).

This exhibit highlights the unifying principles of research instruments and explains how instruments have influenced the rise of modern clinical medicine. This innovative exhibit also makes use of art as a means of illustrating scientific concepts such as this drawing "Microscope" by French artist Bernard Buffet.



The instruments in the exhibit, used at NIH between 1945 and 1965, include a stalagmometer, tensiometer, torsion balance, colorimeter, planimeter, refractometer, micrometric gasometer, calculator, and microscope. Although diverse in form and function, they demonstrate how human ingenuity and precision craftsmanship have furthered our understanding of biology and medicine.

.Book Briefs

Ruth Johnsson Hegyeli and Alberto Mario Marmont du Haut Champ, eds., *Discovering New Worlds in Medicine*, Farmitalia Carlo Erba, Milan, Italy, 1991. 400 pp. color illus. English and Italian editions.

This book, published to commemorate the quincentennial of the discovery of the New World, provides an overall and, in some aspects, eclectic view of the progress of medical science from the past to the present, and includes some encouraging promises for the future. It was developed under the auspices of the NIH Christopher Columbus Committee for Medical Sciences and its counterpart committee in Genoa, Italy. It records the tremendous transformation in all fields of medicine, and the contributions of men and women of many nationalities and ethnic backgrounds. More than 40 leading U.S. and Italian scientists have written chapters in vastly diversified fields from the genome to applied research in space in the future. The authors have presented their knowledge and opinions in a way that is intelligible to laymen, but at the same time attractive and informative to specialists. The book is richly illustrated in

color with photos and drawings from museums, libraries, and collections all over the world. Copies of the book have been distributed to major medical libraries throughout the United States.

Renée C. Fox, Judith P. Swazey, and Judith C. Watkins, eds., *The Study of the Sick, Proceedings of an oral history conference on the development of clinical research, 20-22 May 1991*. Philadelphia: Medical College of Pennsylvania, 1992.

Described by the conference organizers as a "collective conversation," this conference, sponsored by the Acadia Institute, the National Library of Medicine, and the Allegheny-Singer Research Institute, brought together leading figures from the golden age of clinical research to discuss with historians, sociologists, and other humanists the study of the sick in modern times. NIH alumni will be particularly interested in the views of Dr. Donald S. Fredrickson, former NIH director, and of Dr. Robert W. Berliner, former NIH deputy director for science, on the history of clinical investigation at NIH and the significance of the NIH Clinical Center. Copies of this publication are available from the Office of the Dean, Medical College of Pennsylvania.

Exhibit Shows Medicinal Plants

An exhibit of medicinal plants called the "Healing Garden" has opened in the NIH Visitor Information Center, located on the B1 level of Bldg. 10.

Like the plants that comprise it, the exhibit will grow. Its purpose is to illustrate the contribution of plants and plant extracts to 20th century medicine.

Some 25 percent of all prescription drugs are said to be derived from plant sources. Even aspirin has its origins in

tree bark. But many fear that as rain forests, where more than half the world's plant species are located, are destroyed, the possibility of finding new cures is perishing, too.

While several additions to the garden are presently being researched, curator Dinah Bertran would appreciate it if anyone with knowledge of plant/drug connections would contact her by phone (496-1776) or fax (402-0601).

The Healing Garden can be seen Monday through Friday, 9 a.m. to 5 p.m.

'The Year of Women'

Women in Science Careers Vow To Take Charge, Ride the Tide

By Carla Garnett

Nearly all the scientists, physicians and academicians assembled to speak at the recent forum on women in science careers had something basic in common with more than 90 percent of their audience—they were female. By contrast, the discussion focused on an area that has been primarily dominated by males—upper-echelon positions in biomedical careers.

Sponsored by NIH's Office of Research on Women's Health, the recent 2-day workshop "Women in Biomedical Careers: Dynamics of Change" began to fill in the framework formed at ORWH's March public hearing. Participants knew the task was formidable; simple statistics tell the story.

According to numbers presented at the hearing by the Washington-based Feminist Majority Foundation, 64 percent of United States medical school students in 1990 were male; men made up 79 percent of American medical school faculty; 84 percent of the country's physicians were men; and there was not one female dean among all U.S. medical schools. Latest census figures show that 51 percent of the country is female.

But that was all old news, really. The prevailing sentiment at the meeting was fresh: 1992 represents a window of opportunity for women in biomedical careers—in all careers, essentially—and for once the shutters are wide open.

"We know the problems," said Dr. Vivian Pinn, ORWH director, in opening remarks. "We're not here to dwell on the past, but to propel [ourselves] into the future."

In testament to the scope and importance of the problem, nearly every



Dr. Vivian Pinn, director of NIH's Office of Research on Women's Health, greeted participants at the workshop, "Women in Biomedical Careers: Dynamics of Change."

major medical institution was represented at the workshop by a member of its committee to recruit, retain or facilitate the re-entry of women. In fact, attendance exceeded ORWH expectations and additional accommodations were arranged midway through the opening morning session.

About 300 participants were expected during the preregistration period; nearly 100 more on-site registrants signed on in the last 3 days before the event, according to conference organizers.

One reason given for the overwhelming response to what Pinn admitted were hurriedly dispatched invitations was the political climate and the seemingly shared sense among women that 1992 is "the year of women." Only about 6 months passed between planning of the workshop to the event, necessitating an efficient coordination of schedules and activities. Pinn thanked participants and planners for responding so quickly and fully.

"The time is ripe," she said, quoting a phrase often used by NIH director Dr. Bernadine Healy during her speeches

on women's health. "There is a reawakening. Seeing so many of you out there is a dream come true."

Healy reiterated what could have been the subtitle of the workshop. "The time is right for women to be recognized as leaders in science and in every other field of endeavor," she said. "The complex nature of science in the 21st century demands the energies and resources of a diverse talent base—one that includes legions of women who are prepared to take scientific challenges."

Hailed upon her arrival much as a conquering heroine, Healy was given a standing ovation following her address. From her enthusiastic reception, it was evident she is seen by prominent women nationwide as one who has broken through a major barrier and virtually opened the floodgates for women everywhere.

Another speaker put the session in perspective.

"This meeting is unique, but it is no accident," said Dr. Carola Eisenberg, director of International Programs for Medical Students at Harvard Medical School and cochair of the workshop planning task force. "It is happening for the first time because a woman, an outstanding woman, Bernadine Healy, is the director of the National Institutes of Health."

Another soldier on the battlefield was acknowledged as well. A longstanding leader and promoter of women's health issues, Dr. Ruth Kirschstein, the first and as yet only woman director of an NIH institute, said after 18 years in the position, she still often finds herself as the only woman in meetings of NIH policy makers.

But, citing the appointments of Healy and Pinn, Eisenberg told Kirschstein

that a posse is on the way. "Ruth has been fighting for women for many years," she said, "and now she's not alone."

Eisenberg also gave a little history lesson to the assembly, telling how formerly all-male Johns Hopkins medical school reluctantly first admitted women to its program in 1893. Facing a severe economic deficit in the school budget, Hopkins trustees, with distinct regret, accepted a half million dollar proposal by four Quaker women: Admit women on the same terms as men in exchange for an endowment generous enough to open the school on time.

Applying the Quaker philosophy to today's struggle for parity in tenure and top scientific appointments, Eisenberg said that search committees "acting in good faith" would be amazed by the number of qualified applicants who are also women. But what will suddenly give rise to the necessary good faith?

"Far too many women students continue to be taught by individuals who don't welcome women into the sciences, who really still doubt that women can do science."

—Dr. Shirley McBay

"The same recipe used to such good effect a century ago," she said, "endowment funds on the one hand and formal stipulations on the other...We are not here to exchange war stories. We are here to work for change. Our assignment is to identify what works and what might work if given half a chance."

Sharing a model of what worked recently at Yale University's school of arts and sciences, Dr. Linda Bartoshuk, professor of surgery at Yale's medical school, gave an example of Eisenberg's theory.



Workshop cochair Dr. Carola Eisenberg (l) of Harvard Medical School and Dr. Judith LaRosa, deputy director of NIH's Office of Research on Women's Health, teamed up to address attendees.

In the mid-1980's, Bartoshuk explained, Yale reviewed the representational makeup of its faculty and found what probably most every other major university in the country would find: women are far too scarce in professorships, tenured positions and other top policy making roles.

Several Yale committees were charged with addressing the problem and several solutions were suggested: Invitations to the university were extended to distinguished women academicians, who were then made more visible in campus affairs. Department chairs were made to discuss with the provost the career status and prospects of every non-tenured woman within their jurisdiction. Childcare facilities and employment opportunities for spouses were improved.

One committee was bolder than the rest, though. It dared to ask for quantified results, demanding in 1984 that the number of tenured women double by 1990.

"Nobody had ever said anything like that before," Bartoshuk said. "And nobody believed for a minute that anybody would do anything about it."

What made that committee's sugges-

tion work where others had not was simple economics: Yale's president, showing a commitment to the effort from the top, put his money where his mouth was. He allotted position slots and funds to the provost, who then offered the powerful incentives to department chairs. The numbers of tenured women at Yale surged, meeting its goal a year early.

Dr. Shirley McBay, president of the Quality Education for Minorities Network in Washington, D.C., asserted that a great deal of the nonparity of women in science careers stems from an attitude cultivated at many educational institutions.

"Far too many women students continue to be taught by individuals who don't welcome women into the sciences, who really still doubt that women can do science," she said. "Seems to me, there really isn't a big mystery about what it takes to increase the participation of girls and women in the sciences."

Consensus of the speakers seemed to be that not so surprisingly, attitudes can be conquered with well-placed political pressure and well-spent economic power.

"Achieving excellence demands all the talent universities can find," concluded Eisenberg. "Ignoring the talents of half the human race assures mediocrity."

Referring to the recent show of political strength by women politicians and women's support groups, she challenged the audience to change the status quo.

"There is a tidal wave out there," she said. "Women made that tidal wave. What we have accomplished in politics, we can do also in scientific research. Ladies, get out your surf boards. We are going to ride that tidal wave until gender is no longer a criterion for any job except being a mother."

News From and About NIHAA Members and Foreign Chapters

Dr. Christian B. Anfinsen, with NIAMDD from 1950-1981, and now professor of biology in the department of biology at Johns Hopkins University, will be honored on Nov. 2 at a symposium, the 20th anniversary of the notification that he won the Nobel Prize for Chemistry. The details of the program, which will be held in Masur Auditorium, Bldg. 10, are described in the sidebar on this page. All NIH Alumni Association members are invited to attend the program and the reception following it.

Dr. Julius Axelrod, winner of the 1970 Nobel Prize for Physiology or Medicine while working at NIMH, was honored at a symposium, held on his 80th birthday, Sept. 18 in Masur Auditorium. The symposium featured his former postdoctoral fellows. The next issue of *Update* will report on this program.

Dr. Jacob A. Brody, who was at NIH from 1959-1985, is dean of the School of Public Health at the University of Illinois. He started with NIAID and left as associate director for the Epidemiology, Demography, and Biometry Program at the National Institute on Aging.

Dr. George T. Bryan, a clinical associate at NIAID in the Laboratory of Clinical Investigation from 1959 to 1961 and a pediatrician in the Endocrine Branch, NIH, from 1961 to 1963, has been dean of medicine for 15 years and vice president for academic affairs for 8 years at the University of Texas Medical Branch, Galveston. He writes

that he is "delighted with the selection of Shelly Wolff as recipient of the 1992 NIH/NIAID Distinguished Alumni Award. We were colleagues at LCI under Vernon Knight."

Dr. Michael Chirigos, at NCI in the

Division of Cancer Treatment as a section head in immunopharmacology from 1959 to 1985, and then on the staff of the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, has been appointed by CEL-SCI Corp. as a consultant for technical

PROTEIN FOLDING—1992

A Symposium to Honor Christian B. Anfinsen

Sponsors: NIDDK, FAES, NIHAA

Monday, Nov. 2, 1992

Masur Auditorium, NIH

8:45 a.m. Introduction *Alan N. Schechter, Phillip Gorden, Allen M. Spiegel*

Protein Folding Models *Pedro Cuatrecasas and Constance Tom Noguchi, Chairs*

9:00 a.m. Models of Protein Folding *Frederic M. Richards, Yale U.*

9:30 a.m. Folding Pathways of Ribonuclease *Harold A. Scheraga, Cornell U.*

10:00 a.m. Folding of BPTI and Pro-BPTI *Peter S. Kim, M.I.T.*

10:30 a.m. Coffee Break

Solution and Crystal Studies *David Davies and Irwin M. Chaiken, Chairs*

10:45 a.m. X-Ray Analysis of Protein Stability *Brian Matthews, U. of Oregon*

11:15 a.m. Fluorescence: Intrinsic and Extrinsic Probes *Ludwig Brand, Johns Hopkins U.*

11:45 a.m. NMR Studies of Protein Folding *Angela Gronenborn, NIDDK*

12:15 Lunch Break

Cellular Studies of Protein Folding *Sara Fuchs and Akira Komoriya, Chairs*

1:30 p.m. Thirty Years of Disulfide Shuffling *Robert B. Freedman, U. of Kent*

2:00 p.m. Glycoprotein Folding in the Endoplasmic Reticulum *Ari Helenius, Yale U.*

2:30 p.m. Coffee Break

Protein Engineering *Edward Steers, Jr. and Kathryn Zoon, Chairs*

2:45 p.m. Protein Design *Jane S. Richardson, Duke U.*

3:15 p.m. "Foldases:" Pro-Region Assisted Folding *David Agard, U.C.S.F.*

3:45 p.m. Global Suppressors of Protein Folding and Inclusion Body Formation Defects *Johnathan King, M.I.T.*

4:15 p.m. Concluding Remarks *Edward D. Korn, NHLBI, and J. Edward Rall, NIDDK*

4:45 p.m. Reception, NIH Visitor Information Center, B1 level of Bldg. 10
ALL INVITED

and clinical affairs. The company is based in Alexandria, Va.

Marguerite Donoghue, a clinical nurse specialist at NCI and special assistant to the NIAID director, 1982-1987, was recently named deputy executive director of the National Coalition for Cancer Research. She will direct the



coalition's day-to-day activities and manage a national public education campaign on urgent research and resource needs in cancer. She also is vice president for research and regulatory affairs at Capitol Associates.

Dr. Emil Frei III, who was at NCI from 1955 until 1965, and is now at the Dana-Farber Cancer Institute, Boston, received from the American Society of Clinical Oncology the 1991-1992 Distinguished Service Award for scientific achievement. He received a crystal sculpture for his "outstanding, long-term service to ASCO and the oncology field as a whole." He and Dr. Emil Freireich were the recipients of the first NIH/NCI Distinguished Alumni Award in 1990.

Dr. Ronald Herberman, who was at NCI from 1966-85, is now director of the Pittsburgh Cancer Institute. The



Institute for Advanced Studies in Immunology and Aging gave him its 1992 Lifetime Science Award. His work has provided new insights into understanding the mechanisms by which cells of the immune system maintain surveillance against tumor cells.

Peter Barton Hutt, a member of the advisory committee to the director of NIH and former general counsel of the Food and Drug Administration, was named one of the top 50 lawyers in this area in the September issue of *Washingtonian* magazine. He was selected for his expertise about milk and dairy law and was cited as "equally adept at lobbying, litigation, and negotiation, but giving sound advice is his specialty." He is a senior partner at the law firm of Covington & Burling.

Dr. Hussein M. Khaled, now on a short visit to NCI, is secretary of the NIH Alumni chapter of Egypt. He reports that the group has had another meeting and the main task now is to register the group with the Ministry of Society Affairs. The chapter will be located in the new building at the Cairo University National Cancer Institute where he works. He currently is spending 2 months in Dr. Ian Magrath's laboratory at NCI, working on p53 muta-

tions in bilharzial bladder cancer. Few molecular biologic studies have been done on this type of bladder cancer in Egypt, where the disease is common.

Dr. Richard Krause, former NIAID director and now senior advisor at the Fogarty International Center, spoke before the NIH Alumni Association of India on Mar. 31. The meeting was organized by Dr. Shail K. Sharma, head of the department of biochemistry at the All India Institute of Medical Sciences, New Delhi, India. Approximately 50 NIH alumni attended the talk. The NIH Alumni Association of India was organized in 1987 in connection with the NIH centennial. We hope to have news about this chapter in the future.

Dr. Norman Kretchmer, NICHD director from 1974 to 1981, is now professor of nutritional sciences at the University of California, Berkeley, and



professor of obstetrics and pediatrics at the University of California, San Francisco. On May 3, at the clinical meetings in Baltimore, he was honored by his colleagues, former fellows, residents and students with a symposium on "Frontiers in Pediatrics." The sym-

(continued on p. 10)

(continued from p. 9)

posium was a satellite meeting of the American Pediatric Society and the Society for Pediatric Research.

Dr. Everett L. May, chief of NIDDK's section on medicinal chemistry from 1960 to 1977, has received two major research honors for his contributions to medicinal chemistry and international scientific exchange. On Mar. 29, the Pharmaceutical Society of Japan inducted May as an honorary fellow in a ceremony at Kyushu University. On Apr. 7, he received the American Chemical Society's 1992 Alfred Burger Award in medicinal chemistry. He was a staff scientist at NIH for 36 years. Since 1977, he has been professor of pharmacology at the Medical College of Virginia.

Dr. Martin W. Oster, a clinical associate in the clinical oncology program at NCI from 1973 to 1976, is now associate professor of clinical medicine at Columbia University and attending physician at Columbia-Presbyterian Medical Center, New York. He has been elected to the scientific advisory board of Epigen, Inc., a biopharmaceutical company in Wellesley, Mass.

Dr. Clarence J. Peters, who was a research associate, NIAID, and with Middle America Research Unit (MARU) from 1968 to 1973, has a new post at CDC where he is head of the Special Pathogens Branch. He is responsible for the high containment (BSL-4) laboratory and directs a national program on viral hemorrhagic fevers. He writes, "My main objective will be to develop a vaccine for Lassa fever, a major health problem in West Africa. Other responsibilities include responding to introductions of dangerous exotic diseases such as the recent importation of a filovirus with cynomolgus monkeys brought from the Philippines."

Dr. James A. Pittman, Jr., at NCI from 1954 to 1956, stepped down as dean of the University of Alabama School of Medicine in Birmingham in June. His 18 years as dean of a major medical school are strong testimony to his skills as an administrator, teacher and mentor. He has been instrumental in setting up a local chapter of the NIHAA on the campus. As to his future plans, he says, "I'm 65, and it's just time to do some of the other things I want to do." Some of those other

things included returning to Nova Scotia where he worked 40 years ago, and pursuing photography and other hobbies. Currently, he is spending a year's sabbatical as a visiting professor in the department of social medicine at Harvard Medical School.

Dr. Richard L. Schilsky, a clinical associate in the Medicine Branch and Clinical Pharmacology Branch, Division of Cancer Treatment, NCI, from 1977 to 1981, writes that he is professor of medicine and director, University of Chicago Cancer Research Center.

Dr. Louis M. Sherwood, who was a clinical associate at NHI, in the laboratory of Dr. John Potts, from 1963-66, reports that he has recently "been appointed as senior vice president, medical and scientific affairs, U.S. Human Health, Merck Human Health Division." He has been at Merck for almost 5 years in positions related to international affairs and worldwide development. In his new position he "is responsible for medical and scientific affairs as they relate to the U.S. pharmaceutical program." Prior to joining Merck in 1987, he was professor and chairman of the department of medicine at the Albert Einstein College of Medicine in New York and physician-in-chief of Montefiore Medical Center.

Dr. Maxine Singer, from 1956 to 1988 affiliated with both NIAMD and NCI, where she is scientist emeritus, is now president of the Carnegie Institution of Washington. In June, she was awarded the National Medal of Science for "her outstanding scientific accomplishments and her deep concern for the societal responsibility of the scientist." She received the Medal, which is the nation's highest scientific honor bestowed by the President of the United States, in a White House ceremony. A

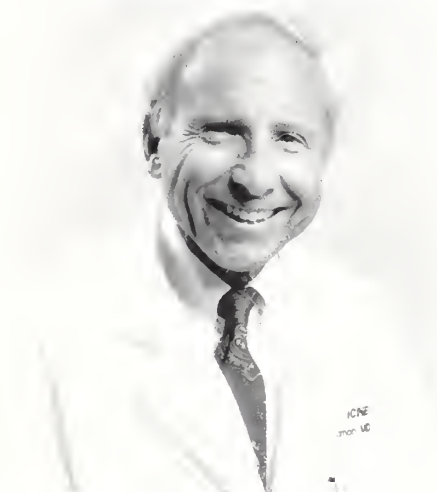


Former Clinical Center director Dr. John L. Decker (r) talks with NICHD clinical associate Dr. Domenica Rubino (l) at the welcoming reception for the entering clinical associates. The event, held on June 30, 1992, at the Mary Woodard Lasker Center, was sponsored by the NIH Alumni Association in conjunction with the NIH Office of Education.



total of 304 individuals have received the medal prior to 1992.

Dr. Alan Solomon, a clinical associate in the Metabolism Branch, NCI,



with Dr. John L. Fahey, 1960-62, is now at the University of Tennessee Medical Center. Recently, he was awarded an American Cancer Society Clinical Research Professorship that provides him with 5 year funding renewable for his entire career and freedom from academic tasks. His research focused on the pathophysiologic roles of monoclonal immunoglobulin light chain proteins to improve diagnosis, treatment, and prevention of related diseases, such as B-cell lymphomas.

Arnold Sperling, chief of the Clinical Center's patient activities department from 1961 to 1991, recently donated his 100th pint of blood at the Blood Donor Center at the Clinical Center. He has been busy as a volunteer at the Smithsonian Institution. He is an information specialist with the Museum of Natural History and the Museum of American History.

Dr. Peter F. Weller, a research associate at NIAID in the Laboratory of Parasitic Diseases, 1974-76, is an associate physician in medicine at Beth Israel Hospital and associate professor of medicine at Harvard Medical School. He was recently elected to the Collegium Internationale Allergologicum at its meeting in Capri, Italy. This group promotes scientific and clinical advances in allergic and immunologic diseases.

Dr. G. Donald Whedon, who was for 19 years NIADDK director before it was split into NIAMS and NIDDK, has retired once again, this time as director of research of the Shriners Hospital system, headquartered in Tampa. He retired from NIH in 1982 to manage research conferences for the Kroc Foundation in Santa Barbara, Calif., but in 1984 moved to Tampa, Fla., to organize and direct the research grants and fellowships program of the 22-hospital Shrine system. He writes that even in retirement he will continue as a member of the U.S. delegation of the U.S.-Japan Cooperative Medical

Science Program, sponsored by several NIH institutes and the State Department. He will also continue his long-time advisory role to NASA's Manned Space Program, particularly now as a member of the National Academy of Sciences committee on safe concentrations of chemicals in the planned space station."

Dr. Peter H. Wiernik, at NCI from 1966 to 1981 in the Division of Cancer Treatment, is now associate director for clinical research, Albert Einstein Cancer Center, and Gutman professor and chairman of the department of oncology, Montefiore Medical Center, New York. He writes that he has been recently elected to Phi Beta Kappa Associates, and to honorary membership in the Polish Oncology Society.

Dr. Sheldon M. Wolff is the recipient of the NIH/NIAID 1992 Distinguished Alumni Award. In 1960, he first joined NIAID's Laboratory of Clinical Investigation, and from 1966 to 1977, was clinical director and chief of LCI. He is now physician-in-chief, New England Medical Center, and Endicott professor and chairman of the department of medicine at Tufts University School of Medicine. The next issue of *Update* will have coverage of the activities held in his honor during Research Festival '92.



Pictured at Dr. G. Donald Whedon's retirement ceremony in August 1991 are (from l) Ralph W. Semb, chairman of the Shriners Hospitals Research Committee; Dr. Whedon and Dr. Reginald Cooper, chairman of the Research Advisory Board and former member of NIADDK's National Advisory Council.

NIH Team Repairs Florida Primate Center Hit by Hurricane Andrew

By Rich McManus

A seven-man team of volunteers from NIH's Division of Engineering Services left Sept. 2 on a 14-day mission to clean up the NIH Perrine Primate Center in Florida, damaged during Hurricane Andrew. The center, owned by NIH but licensed to the University of Miami, is home to a valuable outdoor breeding colony of rhesus and cynomolgus macaque monkeys, none of which were infected or currently involved in research, said Dr. Jim Taylor, deputy director of NIH's Office of Animal Care and Use.

Three hundred fifteen monkeys were housed in some 34 outdoor cages at the facility when the storm hit. While most of the colony weathered the gale, several monkeys died when their group housing modules collapsed, and others fled the premises once freed, Taylor reported. Fearing that the animals were infected, residents of the area shot several monkeys, he added. Coast Guard employees are helping local authorities round up escaped macaques.

The 14-acre center is part of a 58.5-acre tract purchased by NIH in 1982; other agencies lease land on the site, located south of Miami, near Homestead, Fla., the community hardest hit by the Aug. 23-24 hurricane. Three buildings and a trailer form the Primate Center's support space, and all sustained damage; the trailer was a total loss. All of the outdoor monkey cages were destroyed, but there were no injuries to humans, Taylor said.

"Perrine is just north of where the eye crossed Florida," said Taylor. He added that new monkey homes were already being procured for installment.

"The volunteers will be involved in immediate post-disaster work—picking up debris, repairing fences, making it



DES Director Jorge Urrutia bids farewell to volunteers (from l) Pete Manuel, Elmer M. Lazarus, Roy Wright, Gerald Lawson, Leo G. Palladini, Harry Hill and Philip McGee.

safe for people to walk around," Taylor continued. "They will be working under very difficult conditions since there is no power, food, water or accommodations. It's not a trip to Disneyland."

Leading the DES crew is Gerald W. Lawson, a general engineer in the Design and Construction Branch. DES Director Jorge Urrutia put him in charge of assembling, on very short notice, a team of workers from a variety of trades and enough equipment to respond to the disaster. "They are tasked to take care only of the most urgent needs," Urrutia said. "They won't be rebuilding the entire center."

About 31 DES workers volunteered for duty, which heartened Urrutia and boosted morale throughout the shops area of Bldg. 13.

"That was very surprising to me, given the conditions they will be working under," he said. "It's not like going to the beach. It is very commendable for them to do this. They had a million things to put together before leaving and they did it in a couple of days."

Lawson claimed for his team two carpenters, a welder, an electrician and two equipment operators for the first

14-day shift. After 2 weeks, a second DES team may join him at Perrine. Lawson will remain 3 to 4 weeks to supervise repairs. The workers will live aboard a 29½-foot mobile home that DES rented for a month. He also procured from the NIH motor pool a 22-foot moving van, a 7-ton dump truck, a utility trailer, and a front-end loader. The vehicle convoy was escorted by police once it reached Jacksonville, some 600 miles north of Perrine, Urrutia said. "That's because there's a danger of looters, particularly those in search of building supplies."

Formally known as the NIH Perrine Primate Center Hurricane Andrew Emergency Damage Repair Task Force, the group is taking with it virtually everything it will need for living. "We've got generators, compressors, hand and power tools, ladders, lights, gas, water, portable phones, faxes and computers, food, dishes, bedding and first-aid kits," enumerated Lawson. "They tell us we may find ticks, snakes, fire ants, and scorpions down there."

Urrutia thanked the first wave of volunteers just before they left campus and wished them well on their difficult mission.

Science Research Updates

TOXIC ENZYMES FROM MAMMALIAN CELLS MAY SPARE HOST, KILL DISEASE CELLS

Scientists have found toxic enzymes within mammalian cells that theoretically could be harnessed to antibodies to selectively obliterate cancer cells or the immune cells that cause transplant rejection. These could provide a new and safer kind of physiologic ammunition.

Powerful plant and bacterial toxins such as the diphtheria toxin have been linked to antibodies to form immunotoxins that target and kill only specific cells. Mammalian immune systems, however, react against immunotoxins made with such foreign proteins. While plant-derived immunotoxins have shown promise in cancer treatment and tissue transplantation, they have caused significant allergic and toxic reactions in clinical trials.

Drs. Eric Ackerman and Richard Youle and colleagues at the National Institute of Diabetes and Digestive and Kidney Diseases and the National Institute of Neurological Disorders and Stroke compared the cell-killing ability of mammalian RNases, enzymes that cleave RNA (ribonucleic acid), with potent plant and bacterial toxins that also cleave RNA. Most forms of RNA are involved in the translation of DNA's genetic messages into proteins; disrupting RNA paralyzes a cell, effectively killing it.

In one set of experiments, several mammalian RNases were injected directly into frog egg cells. The mammalian RNases varied in cell-killing ability, but the most powerful were comparable to the most potent plant-derived toxins in their ability to stop protein synthesis. Unlike the plant poisons,

which target and cleave only a single chemical bond in one type of RNA, the mammalian RNases cleave many bonds in all types of RNA in the cell, acting more like a bomb than a bullet. The effect, in terms of killing the cell, is the same. The RNases only kill from inside cells; they are not toxic outside.

In other experiments by Drs. Susanna Rybak and Youle, one of the most powerful mammalian RNases, pancreatic RNase A, was coupled to human transferrin—whose function is to carry iron into the cell—or to antibodies to the transferrin receptor. The hybrid molecule stopped protein synthesis in malignant human blood cells growing in culture. Although the conjugate was not as potent as RNase microinjected directly into cells, the experiment demonstrates that a mammalian toxin linked to a carrier molecule can be lethal to cells.

The physiologic role of such powerful endogenous poisons is not clear. This group of scientists suggests that mammalian RNases pack virtually as much of a toxic punch as plant and bacterial poisons, but, because they preexist in mammals, they might be tolerated better than foreign proteins and less dangerous for patients. Research in intact organisms is needed to evaluate the potential of these toxins for therapeutic use.

ONCOGENE-RELATED PROTEINS CHOREOGRAPH EMBRYONIC DEVELOPMENT

Proteins in a family related to an oncogene have shown the most impressive ability yet observed for inducing the organization of embryonic cells into an array of correctly oriented tissues from which limbs and organs will form. The identification of so potent a choreographer of early growth should lead to insights into both normal development and abnormal cellular growth, as occurs in cancer.

Oncogenes—genes that have cancer-causing potential—are known to function in a variety of ways in normal growth and development. A team led by National Institute of General Medical Sciences grantee Dr. Douglas A. Melton and colleagues at Harvard University and NIGMS and National Institute of Child Health and Human Development grantee Dr. Randall T. Moon and colleagues at the University of Washington School of Medicine in Seattle injected into developing frog embryos synthetic RNA that coded for two proteins related to the Wnt-1 oncogene. (RNA acts as an intermediate in translating DNA's genetic messages into proteins. In this case, RNA was used because the Wnt proteins themselves are difficult to synthesize.)

When the Wnt proteins were injected ventrally (along what would become the belly side of the embryo), the dorsal (along the spine) structures of a second frog embryo developed. The head, eyes, and, in some cases, a heart developed in this second embryo, which was joined at the trunk to the original embryo. The scientists also injected RNA coding for activin—another protein that can induce organization in the developing embryo—into other frog embryos. Embryos into which activin RNA was injected developed a less complete dorsal structure without the head and eyes.

This group also demonstrated that Wnt proteins, but not activin, could "rescue" embryos whose development had been disrupted by exposure to ultraviolet radiation. When embryos were irradiated and then injected with RNA for Wnt proteins, the embryos began to develop structures oriented normally, while control embryos did not. Irradiated embryos injected with activin partially recoup, but not to the extent seen with the Wnt proteins. (In a series of recent experiments, NIGMS grantee Dr. Richard Harland at the

(continued on p. 14)

(continued from p. 13)

University of California, Berkeley, has also shown that Xwnt-8, a member of the Wnt family, rescued ultraviolet-treated embryos and induced them to develop normally oriented structures.)

These scientists believe that the injection of Wnt RNA induces the formation of a clump of tissue called Spemann's organizer, and that this organizer sets off the formation of a second embryo. Spemann's organizer is a specific piece of embryonic tissue that, when transplanted to a different site on the embryo, can induce the growth of a second embryo. After injection of Wnt RNA into embryos, a lip of cells that is a hallmark of the formation of Spemann's organizer formed. Embryos into which tissue from this lip was transplanted developed new dorsal structures, just what would be expected from transplanting organizer tissue.

How Wnt proteins signal embryonic cells to assemble themselves in patterns like a drill team on a field remains to be clarified. Deciphering those signals could lead not only to a greater understanding of development, but also toward means to intervene in cellular growth gone awry.

SCHISTOSOMIASIS: CYTOKINES THE KEY TO INFECTION?

Schistosomiasis, a worm infection native to more than 70 tropical and subtropical countries, afflicts 200 million people worldwide and causes more than 800,000 deaths each year. Among parasitic diseases, only malaria causes more disability and death.

Recently, researchers at NIAID's Laboratory of Parasitic Diseases have begun illuminating what may be the worm's ultimate weapon in its battle against human defenses. The parasite appears to evade destruction by coaxing specific immune system cells to produce regulatory chemicals, called

cytokines, that cripple the host's defenses against foreign organisms.

The investigators have zeroed in on one such weapon disabled in schistosomiasis: nitric oxide, a toxic molecule normally secreted by immune system cells known as macrophages. A greater understanding of how nitric oxide production is inhibited could lead to the development of a vaccine or new drug therapies against the disease.

Scientists expect that learning more about how parasites commandeer the immune response will reveal insights into the immunosuppression that accompanies many other chronic infections as well. "We are only at the beginning of our understanding of how pathogens can employ the biologic activities of host cytokines to support their own physiology and survival," says Dr. Alan Sher, chief of the immunology and cell biology section of the Laboratory of Parasitic Diseases.

The study of schistosomiasis has helped clarify this parasite-host dynamic. Schistosomal worms burrow into the skin of a person bathing or working in infested water and, once in the body, can live undetected in the veins of the bladder and intestines for 5 years or

more. There, pairs of male and female worms, intertwined like vines, produce up to 3,500 eggs a day. Many eggs wend their way to organs such as the liver, brain and lungs. They wreak havoc by clogging tiny capillaries and blocking blood flow as the body forms cysts and scar tissue around the eggs in an attempt to wall them off.

Early in infection, people with schistosomiasis, many of them children, suffer fevers, chills, and abdominal and lower back pain. Untreated patients with long-term infestations can develop urinary tract obstructions and jaundice; many patients die from cirrhosis of the liver, bladder tumors, or kidney failure.

The mouse model has been key to understanding how schistosomiasis progresses. Researchers know, for example, that mice with schistosomal infections produce higher than normal levels of certain cytokines secreted by T-helper cells.

In a paper published last October, Sher and his group reported that one of these cytokines, interleukin-10 (IL-10), first appears in mice 7 to 8 weeks into the infection when the worms begin laying eggs. The actual mechanisms by which such cytokines render the immune



Schistosomiasis researchers (from l) Drs. Alan Sher, Isabelle Oswald, Stephanie James, Ricardo Gazzinelli and Thomas Wynn work in the immunology and cell biology section of NIAID's Laboratory of Parasitic Diseases.

system defenseless against schistosomula, however, have remained unclear.

Now, in test-tube experiments with mouse macrophages, Dr. Isabelle P. Oswald and her NIAID colleagues in Sher's section have found out how the parasite subverts the host's regulatory mechanisms to its own advantage. It appears that three T-helper cell cytokines—IL-10, IL-4 and transforming growth factor beta (TGF-beta)—all block nitric oxide production. As first reported in 1989 by Dr. Stephanie L. James, also in the Laboratory of Parasitic Diseases, nitric oxide helps the body's defenses by inactivating enzymes that schistosomula and other invading organisms need for crucial cellular functions such as DNA replication.

Significantly, even tiny amounts of the three cytokines seem to work in concert to prevent worm killing by the nitric oxide mechanism, Oswald and her colleagues reported in the June 1 edition of the *Journal of Immunology*.

Oswald, along with James, Dr. Thomas Wynn, Dr. Ricardo T. Gazzinelli, and Sher, also has discovered that the cell that secretes nitric oxide, the macrophage, needs two signals to be turned on—interferon gamma and endogenous TNF-alpha—and that IL-10 can block the production of endogenous TNF-alpha. Now they are trying to find out if IL-4 and TGF-beta turn off nitric oxide production in the same way.

Further experiments will demonstrate whether this laboratory observation holds up in the live mouse, where the amount of cytokines reaching cells may be far less than that used in the test tube. And although scientists have not yet found that human macrophages use the nitric oxide killing mechanism, many researchers think it highly likely that a human system analogous to that seen in mice exists.

If this proves to be the case,

cytokine-based therapies may someday enable doctors to beat schistosomula at their own game: manipulating the immune response to their own advantage.

GENE DEFECT FOR FAMILIAL MEDITERRANEAN FEVER MAPPED TO CHROMOSOME 16

Researchers at NIAMS have targeted the genetic defect for familial Mediterranean fever (FMF) to a small region of chromosome 16. Patients with this mysterious inherited form of rheumatic disease suffer fevers and periodic acute inflammation of joints and of tissues that line the abdominal and lung cavities. The finding, published in the June 4 issue of the *New England Journal of Medicine*, should aid counseling of ethnic populations in which the disease sometimes strikes as many as 1 in 14 individuals.

"A clear genetic basis for familial Mediterranean fever will help us tremendously in our search for genetic factors underlying other rheumatic diseases like systemic lupus erythematosus and rheumatoid arthritis," says Dr. Lawrence E. Shulman, NIAMS director. Though the cause of these more common disorders remains unknown, they share striking similarities with FMF. For instance, lupus and FMF both often cause severe inflammation of the joints, skin, and lung cavity; occasionally, like FMF, lupus affects the abdominal cavity. Lupus, rheumatoid arthritis, and FMF all are known to repeatedly flare and remit over a patient's life. "This up-and-down course, in FMF at least, is likely to be linked to the gene itself," adds Dr. Daniel Kastner, senior author of the paper and investigator with the Intramural Research Program, NIAMS.

FMF manifests itself in different ways, causing visibly swollen joints or excruciating abdominal pain. Some

people first experience attacks in infancy. FMF can lead to amyloidosis, a deadly buildup of protein in vital tissues such as the kidneys. FMF is extraordinarily prevalent among Armenians, Turks, Middle East Arabs, and non-Ashkenazi Jews living in the United States and abroad.

"Understanding the biological basis of FMF should yield important new insights into the mechanism of inflammation," says Kastner. During the course of FMF, white blood cells proliferate dramatically, invading tissues and causing inflammation. The investigators suspect that the FMF gene may regulate the activity of white blood cells because it appears to be near other well-characterized genes with these regulatory functions.

Genetic studies of FMF will make possible a laboratory test for this frequently overlooked diagnosis. Once the biochemical defect is known, more specific therapies can be designed. The current treatment is colchicine, a plant-derived drug that must be taken every day; however, this medication may cause diarrhea, occasionally reduces male fertility, and may cause birth defects.

To perform the necessary genetic studies, Kastner ventured to Israel and collected blood samples from 350 people from the countryside. He collaborated extensively with Dr. Mordechai Pras, professor of medicine at Sheba Medical Center, Tel-Aviv University, and the founder of a clinic there for patients with FMF. His son, Dr. Elon Pras, traveled to Kastner's laboratory and performed the decisive experiment that linked FMF to chromosome 16. Other collaborators included Dr. Luis Gruberg at Sheba Medical Center; Dr. Michael Dean with the Laboratory of Viral Carcinogenesis, NCI; and NIAMS intramural researchers Dr. Ivona Aksentijevich, Dr. James E. Balow, Leandra Prosen, and Dr. Alfred Steinberg.

Nirenberg (continued from p. 1)

The event drew nearly 900 attendees, who packed the Clinical Center's Masur Auditorium, as well as two overflow rooms. The attractions were clear: A chance to honor the man and to hear the world's foremost genetic researchers.

As NHLBI director Dr. Claude Lenfant explained in opening the symposium, Nirenberg wanted the celebration to be "its own scientific contribution. He demanded that we invite the best genetic scientists, whether or not they had had any personal association with his work."

Lenfant added that "Dr. Nirenberg's accomplishments speak for themselves. Simply put, we are proud to have Dr. Nirenberg in our institute."

Speaking next, NIH director Dr. Bernadine Healy revealed that the symposium had another cause for celebration—Nirenberg's 65th birthday.

"Both the individual and the accomplishments we honor today," she said, "epitomize two of the highest principles of the NIH—the importance of investigator-initiated research and the continuing need for fundamental research."

She amused the assemblage of investigators by telling how, in the early days, Nirenberg's father had visited his son's boss, the late NIH deputy director for science Dr. DeWitt Stetten, Jr., worriedly asking if a person could earn a living doing research.

"Dr. Nirenberg's Nobel Prize and his outstanding career are a testament that he could 'make a living at it,'" Healy said.

The hosannas did not stop there. Though Nirenberg may have wanted to play second fiddle to the speakers, they wouldn't play along. Each paid tribute to Nirenberg's landmark accomplishment.

One speaker, Dr. Philip Leder of

Harvard Medical School, went so far as to propose a perpetual homage: NIH could plant a floral arrangement of the genetic code outside Bldg. 10. The yearly bloom, Leder said, would "remind us of the important heritage we carry forward."

The symposium was organized in four sessions: transcription regulation, gene targeting, development, and regulation of development. But, as more than one speaker observed, the sessions' topics overlap.

Dr. David Baltimore of the Rockefeller University described the topics as four intersecting pursuits. "In truth, you can't separate the four. Our research today spans all of them, and individual laboratories need to have a hand in all to contribute" to scientific advances.

In fact, he continued, "the great achievement of the last 25 years is unity. All of us today speak a common language, whose dictionary is Nirenberg's codes."

The struggle now, he noted, is with the syntax of that language, ruled by a multitude of interacting influences, some as yet unknown. He added that the next 25 years will probably focus on trying to understand each of these units of gene regulation.

Dr. Walter Gehring of the Biozentrum der Universität Basel in Switzerland also stressed the unifying nature of Nirenberg's achievement. "It is not appreciated often," he said. "But the code is universal and genes have been conserved. This allows us to use organisms amenable to scientific study," and then apply the findings to humans, the ultimate target.

Another theme touched on by various speakers was the complex machinery of gene regulation, whether in transcription or in switching genes on and off during different developmental stages.

In a talk about promoter activation

that Leder characterized as turning the transcription field on its head, Dr. Robert G. Roeder of the Rockefeller University said his laboratory had "at last count" uncovered about 40 polypeptides involved in promoter activity.

Roeder believes that transcription initiation occurs through a sequential process that builds complexity. This "assembly pathway," he said, works by stimulating one factor in the presence of other subfactors. "We're trying to understand where the real action is. What starts the process off? DNA binding proteins *per se* are not the only determinants of activation."

The same theme was taken up by Dr. Robert T. N. Tjian of the University of California at Berkeley who has been trying for 10 years to divine both the pieces and interrelationships of the transcription factor machinery. He views these proteins as being "modular. If you can see their structural motifs, you can get a hint" of how they function together.

He also has found "some funny business going on" in the minimal factors needed for transcription and thinks coactivators could be a new family of proteins responsible for assembly.

Even so, he said, these "TATA activating factors," or TAFs, "are not the whole story. There must be other regulators out there" that mediate activity. Such a system, Tjian noted, would be needed as organisms evolved in complexity.

Dr. Beatrice Mintz of the Fox Chase Cancer Center argued that even apparent simplicity may mask variability. She contends that "all mammalian cell types are highly phenotypic" and illustrated her point with slides of the diverse coats produced from homozygotic mice.

Actually, she said, the coat colors of normal mice are controlled by 17

paired cells. Programmed death of specific pigmentation cells creates differently striped coats, a phenomenon she has termed "mosaic gene expression."

"What does this mean?" she asked. "With the right kind of eyeglasses, you can see past the superficial patterns" to the underlying orderly truths.

She believes "heterogeneity produces the raw material for selection and may occur within cell types. You do not need a big increase in the amount of DNA to get a big increase in selection." Instead, the big evolutionary push probably came in higher animals' "fancy new mechanisms" of use.

But, she added, the "potential for variability" brings about a potential for disease. While a gene may not have a coding problem, the gene's regulation may be susceptible to disease.

But genes may also be used to heal, a new frontier discussed by Dr. French Anderson, former chief of NHLBI's Molecular Hematology Branch. He described efforts to treat adenosine deaminase (ADA) deficiency, an inherited severe combined immune deficiency disease. Using a retrovirus vector, patients' T lymphocytes were given a normal ADA gene and reinfused. So far, two ADA patients have been treated, both developing enough immunity to lead near-normal lives.

Unfortunately, Anderson said, today's "gene therapy is expensive and high-technology. It's labor-intensive. We need to develop injectable target vectors.

"In the distant future, we may be able to use gene therapy as a preventive medicine. We may be able to use repressor genes."

But before gene therapy can produce such wonders, he cautioned, investigators must develop site-specific integration, the ability to correct a gene *in situ*, and the capability of being regulated by the body's own physiologic signals.

Anderson, who spent 3 years in Nirenberg's lab, recalled the Nobel laureate's predictions about human gene therapy. "In that lab," Anderson said, "people spoke of human systems to try to develop gene therapy. Nirenberg thought it noble, but that to try it in 1967 was not a good idea. It's one of the few bits of advice from Dr. Nirenberg it's good I didn't follow."

Anderson remembered those days as being "exciting and dynamic," and offered a reason for Nirenberg's success: "Besides being a genius, which helps, he had precise ideas."

"the great achievement of the last 25 years is unity. All of us today speak a common language, whose dictionary is Nirenberg's codes."

—Dr. David Baltimore

Anderson then related two of those ideas, precepts he has tried to follow: "The first is philosophical," he said. "You should keep your eye on the goal." No matter how intriguing an observation, if it's not directly aimed at your goal, pass it by. "Every day, every set of experiments must refocus on your goal.

"The second lesson is pragmatic," Anderson continued. "The assay is key." If an assay must be repeated hundreds of times in a month, it's worth developing a faster test, no matter how close the scientific competition.

Anderson also praised Nirenberg for his farsighted understanding of the profound social questions his work would one day raise. Anderson read a *Science* editorial written by Nirenberg 25 years ago that questioned whether society would be prepared to handle the coming genetic possibilities.

Anderson asked the audience to con-

sider the ethics involved in altering genes. "If you can insert a gene for ADA, then you can do so for any purpose, such as producing a football star."

When the audience laughed, Anderson held up a recent issue of a British journal, then read from its editorial, which claimed people have the "right to make what they want of their lives," whether by changing their skin color or increasing their intelligence.

"We don't have enough wisdom," Anderson said, "to manipulate ourselves willy-nilly. We have only treated two patients and already journalists want people to do whatever they desire. I hope society will listen to the wisdom of Dr. Nirenberg 25 years ago."

But the symposium also had its lighter moments. Dr. Matthew P. Scott of Stanford University likened homeotic protein action, with its transformation of one body part into another, to the presidential candidates' ability to reinvent themselves.

And Basel University's Gehring credited a 9th century Japanese statue of Buddha with discovering homeotic mutation. The statue has two giant butterfly-like feet, each with eight legs instead of the normal six. Gehring had seen the statue but didn't realize its message until he characterized the gene for the Antennapedia mutation, which converted antennae into legs in fruit flies. "He knew and tried to tell us," Gehring said.

By symposium's end, Masur was still filled, the audience still eager. Berkeley's Tjian may have voiced the reason why: "In a small way, many of us are trying to recapture" the theme of Nirenberg's work, trying to figure out the broader code regulating gene expression.

"We are continuing the effort to break through, now not a single gene's code but the overall picture" of the genetic mystery.

Rationing of Medical Care — Dilemmas

By Dr. Seymour Perry

In recent years, there has been increasing debate concerning the rationing of medical care as perhaps the only solution to rising health care costs. Rationing of health care has always existed in this country but has never been explicit national policy. The continued escalation of the costs of health care has led to the call for limiting access to certain medical services. Accordingly, it would seem logical to begin any discussion of rationing with a consideration of the problems in the American health care system.

The pluralism in the American system is part of the problem and a major contributor to the increase in health care expenditures. We have 1,400 different health care insurers, each with different requirements, different policies and different forms.

Other factors that contribute to the increases include the enormous attraction of Americans to medical technology, large geographic variations in practice patterns, the traditional "technological imperative" in which physicians strive to do as much as they can for each patient, the over-utilization of expensive technologies, the persistence of obsolete or ineffective technologies, malpractice premiums and awards and the practice of defensive medicine (judged to be at least \$15 billion annually), medical fraud (perhaps, as much as \$60 billion), an aging population and the enormous costs associated with acquired immunodeficiency disease, substance abuse, violence and teenage pregnancy, and finally, the huge administrative costs associated with administering our pluralistic system (claimed to be at least \$100 billion annually).



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Efforts to counteract these have included a certificate of need (CON) program, professional standard review organizations (PSROs), the prospective payment system and others. None of these was successful in containing expenditures for health care. Currently, the attention is on the resource-based relative value scale and practice guidelines. I am skeptical that these will be any more effective than the earlier attempts.

With U. S. health care expenditures the highest in the world at approximately \$820 billion, the question is, are we getting our money's worth? From the standpoint of health care benefits, that is a difficult question to answer since outcome measures such as life span and infant mortality are too gross and quality of life and health status are too difficult to gauge. But from the previous discussion there is unquestionably a great deal of waste and inefficiency in our system such as it is.

The argument in this country for rationing includes an aging and grow-

ing population, insatiable public expectations and the unlimited demand for medical services, the continued introduction of new and expensive technologies and the failure of a large number of remedies to contain or even moderate the increases in health care costs.

Accordingly, and based on the failure of the many initiatives over the years aimed at containing costs, some have concluded that rationing is the only way to limit expenditures for health care in this country. First, it is important to understand the true definition of rationing which, according to Webster, is "to distribute or divide in an equitable manner" or "equal sharing freely extended to scarce things made available either equally or equitably in accord with need." For example, gasoline in World War II was rationed in accordance with the definitions mentioned above. However, rationing as currently considered by its advocates but left unsaid, means "denial of selected medical services to certain segments of society." We have always had rationing whether based on economic class, severity of illness, i.e., the terminally ill, or on age. As an aside, one might raise the question, if care is to be rationed based on age, i.e., to the elderly, why should it not be applied to very young patients whose course would appear to be hopeless?

At present, access to health care can be classified into four tiers:

1. the affluent, who have access to any and all medical technologies,
2. the insured who have a somewhat more limited access to the latest and the more expensive technologies than the affluent,
3. the Medicaid-covered population who have variable but often limited access depending on the state in which they reside, and
4. the uninsured and underinsured who may have no regular access to

health care and which is estimated to be more than 37 million individuals.

Rationing, as it is generally perceived in the current discussions, would predominantly affect the third and fourth tiers, i.e., those who are poor or who cannot otherwise afford health care insurance.

The poor and economically disadvantaged have always gotten less in the way of health care. This is true not only in this country but in other countries as well. Twenty-five or 30 years ago, when more than 50 percent of personal health expenditures were paid for directly, rationing on economic grounds was a fact of life for many.

It should be noted that in modern times, rationing on medical grounds is not infrequent. For example, when beds in an intensive care unit are scarce they are usually saved for the most seriously ill. However, in this country rationing based on explicit public policy has been rare. An early effort occurred in the 1960's when, with the development of the technique of renal dialysis, committees were constituted to sit in judgment about who would be accepted for that particular procedure. With enactment of federal legislation creating the End Stage Renal Disease Program, patients with renal failure gained almost universal access to dialysis.

In 1987, the State of Oregon embarked on an effort to establish a rationing plan so as to expand eligibility in its Medicaid program. Initially, Oregon withdrew Medicaid coverage for organ transplantation and thereby extended coverage to an extra 1,500 poor. Two years later, under state legislation, it began to set priorities for medical services aimed at expanding Medicaid eligibility to an additional 120,000 individuals. The approach was to develop a list of services in priority order based on clinical effectiveness

and social value. The cut-off in this list, beneath which there would be no reimbursement, will depend on available state resources. The principles underlying the Oregon Plan are to provide universal access and a basic level of care for those below the poverty level and to avoid incentives for over-treatment.

The initial list of medical services was devised using a formula which took into account the cost of treatment, the expected benefit and the duration of such benefit. However, when the formula was applied in developing the 1990 list, it turned out that certain services generally considered to be of less overall benefit rated higher than services of greater importance. For example, capping of teeth scored better than appendectomy. In the current approach, the state has attempted to make the priority list more rational by utilizing focus groups, telephone surveys, public hearings and a panel of health care professionals. If nothing else, the experience in Oregon illustrates the difficulties in devising a rationing scheme even when the public is engaged as a partner in the process.

However, in spite of improved methodology in designing the rationing scheme, the approach taken by Oregon was criticized because it ignored the costs of providing no care, exempted the aged, blind and disabled, and seemed to take services from the most poor and give them to the less poor. Critics also claimed that it discriminated against children, pregnant women and care-taker relatives, failed to address wasteful expenditures and did not include an attempt to raise taxes or to shift funds from other state programs.

The Oregon plan garnered both support and opposition from a variety of sources including voluntary health organizations, some members of Congress, bioethicists, and health poli-

cy analysts. However, the program had to be approved by the Health Care Financing Administration, which has Federal responsibility for Medicaid, and to the surprise of many, the Bush administration in August rejected the plan on the basis that it violated the recently enacted Americans With Disabilities Act. Nevertheless, it is clear that the issues raised by the Oregon effort will continue to be explored, and there are certain to be other attempts to design a plan to ration certain health care services so as to cover more individuals in our society who now have no health insurance.

One must keep in mind, however, that the American public has affirmed repeatedly that it wants access to the best and latest medical technology and has often demonstrated its compassion for the individual patient in need. In the face of such considerations, it would appear highly unlikely that rationing on economic grounds would be acceptable although rationing on the basis of medical or ethical considerations is another matter. Furthermore, the present emphasis on the development of practice guidelines aimed at assisting physicians in providing high quality care may well provide an obstacle to any system of rationing based on economic grounds. Such guidelines define a standard of care which is government-endorsed without discrimination based on any grounds except for medical or ethical reasons. Practice guidelines may thus provide a single standard to govern the care of all American citizens as a matter of public policy.

In addition, it can also be argued that it is illogical to institute rationing with all its ethical and moral dimensions when there are so many areas in health care, as discussed at the outset, where steps could be taken to save money and to provide greater access and better health care to all our citizens.

Magnetic Resonance Imaging Techniques Prove Faster, More Powerful Than Ever

By Charlotte Armstrong

The information that scientists glean from spinning atomic nuclei is providing an ever-more-powerful means of viewing the body's interior contours and monitoring its chemistry, according to speakers at NIH's recent science writers seminar on magnetic resonance imaging (MRI).

Scientists from NIH's state-of-the-art In Vivo NMR Research Center gave an overview of studies under way here and at other centers that are aimed at exploiting and expanding MRI's applications as a clinical diagnostic and research tool. (NMR or nuclear magnetic resonance, is the generic term for this technology.)

Dr. Edwin Becker, chief of the nuclear magnetic resonance section, Laboratory of Chemical Physics, NIDDK, opened the seminar with an overview of the physical basis of MRI and its capabilities.

Dr. Chrit Moonen, manager of NIH's In Vivo NMR Research Center, administered by NCRR, described the versatility of MRI scanning in studying function as opposed to anatomy. MRI can be used to study macroscopic function *in vivo* such as movement of the heart and joints. Moonen concentrated, however, on MRI's capacity to study microscopic functions by imaging specific metabolites in living tissue involved in processes like cellular energy turnover, amino acid and neurotransmitter metabolism, and osmotic pressure regulation.

Magnetic resonance spectroscopic imaging can now provide a picture of how the concentration of a selected metabolite varies across a particular slice of internal tissue. Similar information on several different compounds can be gathered simultaneously. In



Dr. James Pekar (r) an NIAAA senior staff fellow, interprets an MRI scan for attendees of the science writers seminar on MRI during a tour of the NIH In Vivo Research Center. At rear is a 4.7-Tesla magnet used for research studies.

addition, transport functions like flow, perfusion and diffusion can be measured by MRI. Scientists can now obtain pictures of movement—such as three-dimensional images of blood vessel flow, capillary perfusion, and the diffusion of water.

NIH scientists are refining MRI's ability to visualize local differences in diffusion. Using animals models of stroke, they have found that the degree of local diffusion is changed in the area affected by stroke. While this research is preliminary, these studies suggest that MRI could be used to determine the stage of a stroke very early in its course, while it may still be possible to reverse the damage.

New techniques for speeding the generation of images are helping make possible some of the MRI functional studies described above. Dr. Robert Turner, a visiting scientist with the Laboratory of Cardiac Energetics, NIDDK, described research under way

on methods that reduce the time required for a single scan from minutes to a fraction of a second. Since multiple scans are required for each study, this would also decrease the time subjects have to remain in the tight confines of the magnet—a problem for some patients—and thereby reduce cost because more scans could be done per machine.

The speed that echo-planar imaging (EPI) offers makes it possible to do complete scans of a patient in 10 to 12 minutes as opposed to one or two hours. The technique also makes possible studies that require rapid repeated scanning, without the visual artifacts created by motion in conventional imagers. EPI is ideal for following the movement or pulsing of joints and internal organs. The quality of EPI scans is high, and in some cases similar images would be difficult or impossible to get with any other technology.

The passage of contrast material, monitored with "snap-shot" scans taken

in rapid sequence, can reveal changes in blood volume and perfusion that reflect tumor growth or loss of circulation from stroke or heart attack. For example, blood perfusion at the edges of a tumor—where it is growing—is high. EPI could be used to monitor growth of a brain tumor and the effects of treatment. Similarly, MRI scans with contrast material can reveal the areas of cardiac muscle starved of blood after a heart attack.

In studies in monkeys done by Turner and his colleagues, EPI scanning of the passage of contrast material has made it possible to produce maps of blood volume in the brain. Such images could delineate the area of the brain being stimulated as it happens, suggesting the possibility of detailed research on the brain's functional architecture.

The speed of EPI is also critical to studies of water diffusion in tissues. Study of diffusion is difficult with conventional MRI because of artifacts caused by motion. However, EPI can detect abnormalities in diffusion in brain tissue. Changes in diffusion in the grey matter of patients with Alzheimer's disease, for example, may reflect the tissue's loss of organization in this disease. EPI might one day be used for the non-invasive diagnosis of Alzheimer's disease.

NIH is one of four centers in the world with the hardware necessary for EPI. "Add-on" components that can be used in conjunction with existing conventional hardware to provide EPI imaging capability are already being marketed, and Turner predicts that commercial EPI imagers may be available in two years.

The use of MRS (magnetic resonance spectroscopy) to study metabolites in living tissue has redirected and opened up new areas of research in physiology. Dr. Robert Balaban, chief of NHLBI's Laboratory of Cardiac



This high-resolution image of an *in vivo* rabbit eye demonstrates the potential of MRI in the evaluation of eye disease.

Energetics, described how his MRS studies of phosphate in cardiac muscle overturned the traditional picture of energy exchange in muscle.

Conventional theory held that the rate of production of adenosine triphosphate (ATP), a molecule in which energy from food is stored for cellular use, depends on the concentration of two molecules from which ATP is generated, adenosine diphosphate and inorganic phosphate. MRS studies at NIH of phosphate turnover in the heart in animals undergoing stress testing showed that, in fact, concentrations of these three molecules are quite constant, even with a five-fold increase in exercise level. While such insights are important scientifically, they may also provide the basis for a much more sensitive means of testing whether cardiac blood flow is adequate to support muscle contraction.

MRS studies of kidney metabolism revealed in an unexpected way a fundamental and previously unknown means by which the kidney maintains osmotic balance, that is, the fluid balance across membranes. Balaban and coworkers discovered the presence of until-then unidentified compounds in the kidney in high concentrations. Ultimately, these were found to be responsible for up to 50 percent of the kidney's osmotic balance. They play a key role in pro-

tecting cells in the kidney from the potentially toxic effects of the high concentrations of urea and sodium that are necessary for the formation of urine.

The notion that organic compounds, rather than inorganic ions, played an important role in osmotic balance has opened up a new field of investigation. The knowledge of kidney function and dysfunction that is emerging from these studies should contribute to an understanding of kidney disease.

Finally, Balaban described how physiologists are developing ways to better exploit the interaction of water protons with specific macromolecules to provide better contrast between tissues. This has been especially useful in various diseases since the concentration and composition of macromolecules are considerably different in diseased than in healthy tissue.

Macromolecules such as lipids, connective tissues, and various proteins influence the MRI signal of water and therefore can be used to generate image contrast. Using this principle, scientists at the University of Pennsylvania have been able to follow the early progress of multiple sclerosis by using this technique to identify areas where the lipid sphingomyelin, a compound that is an important component of the sheathing around nerves, is deteriorating. Other imaging techniques failed to reveal these changes.

A tour following the seminar took participants through NIH's In Vivo NMR Research Center and included a stop at the center's 4-Tesla, 1-meter-bore magnet contributed by NHLBI. (A Tesla is a unit of magnetic field strength. The field of this magnet is about 80,000 times greater than the earth's magnetic field.) Studies at NIH using these powerful magnets promise to expand further the already formidable capabilities of NMR imaging.

Fauci (continued from p. 1)

AIDS. Fauci's talk reviewed his laboratory's research on the complex immunologic events that occur at each stage of HIV infection, especially those very early in the course of the disease and those that result in CD4+ T cell dysfunction.

"We must rethink the concept of clinical latency," he said. "Although little HIV can be detected in the blood during this period, there is sequestration of virus in the lymphoid tissue, active virus replication in the lymph nodes, and the induction of HIV expression. In addition, there are progressive functional abnormalities of CD4+ T cells as well as cytopathic effects on these cells."

Once it enters the body, HIV rapidly replicates and disseminates. Fauci and his group have demonstrated that during this period, called the acute or primary stage of infection, large numbers of viral particles spread throughout the body, seeding themselves in various organs, particularly the lymph nodes. The lymph nodes act as a filtering system for the body, trapping invaders and presenting them to the squadrons of immune system cells that congregate there.

"Three to six weeks after exposure to the virus, up to 50 to 70 percent of HIV-infected persons suffer flu-like symptoms related to this acute infection, such as fever, malaise, headaches and swollen lymph nodes," said Fauci.

A week to a month later, the patient's immune system fights back and CD4+ T cell levels may rebound to 80 or 90 percent of their original level. The patient generally goes into a symptomless stage lasting 2 to 10 years, "during which time it is difficult to find the virus replicating in the peripheral blood mononuclear cells," said Fauci. "The patient often feels fine."



Dr. Anthony S. Fauci

But, as Fauci and his colleagues have demonstrated, HIV is active within the lymphoid organs. Using techniques such as electron microscopy and polymerase chain reaction, the researchers have shown that early in the course of infection large amounts of the virus are trapped in the thread-like tentacles of follicular dendritic cells contained within the germinal centers of the lymph nodes.

In and around the germinal centers, CD4+ T cells become infected in increasingly large numbers. Many of these cells may become activated, allowing them to be more easily infected.

For years, even though little virus may be present in the blood, significant numbers of HIV particles are accumulating in the germinal centers, both in infected cells and as free virus. "At least 10 times more virus per any given number of cells may be present in the lymph nodes than is present in the bloodstream," Fauci reported.

"Paradoxically, the filtering system in the lymph nodes, so effective at trapping other invaders and initiating an immune response, may be an important reason why HIV is so effective at

destroying the immune system."

Ultimately, the NIAID researchers speculate, the lymph node is overwhelmed and the follicular dendritic cells break down, leading to the release of large quantities of free virus into the bloodstream that heralds the later stages of HIV disease.

"During this burned-out stage, the follicular dendritic cells can no longer effectively filter and trap the virus," Fauci explained. "One sees spill-over of virus into the bloodstream, which manifests itself as accelerated viremia and ultimately advanced HIV disease."

A further understanding of the critical events early in HIV infection and the role of the lymphoid organs in the progression of HIV disease will have important implications for treatment. Toward this end, NIAID researchers are beginning a clinical trial to determine whether people would benefit from treatment with zidovudine (AZT) very soon after primary infection.

"This trial will help clarify gaps in our understanding of HIV immunopathogenesis, and elucidate the promise of therapeutic intervention early in the course of HIV infection," Fauci said.

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Lance Liotta Named Deputy Director for Intramural Research

Dr. Lance A. Liotta has been named NIH deputy director for intramural research, one of the top five positions at the agency; his appointment was effective July 6.

He is joining the Office of the Director after serving simultaneously since 1982 in three positions at the National Cancer Institute: chief of the tumor invasion and metastases section in the Laboratory of Pathology, chief of the Laboratory of Pathology, and codirector of the Anatomic Pathology Residency Program in the Laboratory of Pathology.

Liotta has devoted his career to the study of cancer invasion and metastasis, the major cause of cancer treatment failure. He was one of the first scientists to investigate this process at a molecular level. In 1975 he proposed that tumor cell attachment and degradation of the basement membrane (a collagenous sheath that surrounds epithelial ducts, blood vessels and nerves, and separates tissue compartments) was crucial to invasion and metastasis. He found that disruption of the basement membrane is the general hallmark of the transition from *in situ* to invasive cancer for all human epithelial cancers. He discovered metalloproteinases produced by tumor cells that degrade the basement membrane collagen and facilitate invasion. He went on to develop and lead a metastasis research group at NCI. Scientists in Liotta's group have discovered a series of novel genes and proteins that regulate cancer invasion and metastasis, providing new strategies for cancer diagnosis and treatment. These include NM23 (Dr. Patricia Steeg), a functional suppressor gene for breast cancer metastasis; TIMP-2 (Dr. William Stetler-Stevenson), a new protein that inhibits invasion and angio-



Dr. Lance A. Liotta

genesis; laminin-binding proteins (Dr. Mark Sobel) that mediate tumor cell attachment; and autotaxin (Dr. Mary Stracke), a protein that profoundly stimulates motility. Liotta's group also developed the first synthetic compound (CAI) (Dr. Elise Kohn) that blocks cancer metastasis growth by inhibiting selected signal transduction pathways. CAI has now entered clinical phase I trials under support from the Division of Cancer Treatment.

"We have searched inside and outside the NIH for an outstanding deputy director for intramural research to coordinate policy for all research conducted on our 300-acre campus. I believe that Dr. Liotta is the very best possible scientist for this extremely important position," said NIH director Dr. Bernadine Healy in announcing the appointment. "I am very pleased that he has accepted this post as one of my four principal deputies."

Liotta is an active member of six professional societies—International Metastasis Research Society, American Association for Cancer Research,

American Association of Pathologists, American Society of Cell Biology, American Society for Clinical Investigation and the International Academy of Pathology.

He has been the recipient of numerous awards for cancer research, including three PHS Commissioned Corps Medals, the Arthur S. Flemming Award, the Warner Lambert/Parke Davis Award, the sixth annual Rhoads Memorial Award, the Milken Family Foundation award for basic research, the Josef Steiner Prize, the Simon Shubitz award for basic research, and the Lila Gruber Research Award. He holds more than 30 patents for his work. He earned his A.B. degree in general science and biology from Hiram College in Ohio, followed by his Ph.D. degree in biomedical engineering and biomathematics from Case Western Reserve University. The subject of his Ph.D. was cancer metastasis. Then in 1976, he earned his M.D. degree from Case Western Reserve University and joined NIH as a PHS resident physician in the Laboratory of Pathology.

Previous Permanent Deputy Directors were:

Norman H. Topping ¹	1948-1952
James A. Shannon ¹	1952-1955
Joseph E. Smadel ¹	1956-1960
G. Burroughs Mider ¹	1960-1968
Robert W. Berliner ²	1969-1973
DeWitt Stetten, Jr. ²	1974-1979
Robert Goldberger ²	1979-1981
Joseph E. Rall ³	1983-1991

¹Before 1960 were called associate directors for intramural research

²For science

³For intramural research

Town Meeting III Held On Workplace Harmony

The third "town meeting" held June 29 on the topic "The NIH Workplace: Diversity in Harmony," featured guest speakers Rep. Connie Morella and columnist Judith Martin, also known as "Miss Manners."

In her introduction, Healy emphasized that NIH, although a community, is not truly a family. "Familiarity and intimacy are appropriate in family life, but a certain formality and distance should be maintained at work." She called for "an abiding respect for the individual... every life matters, every human being is important." It would be a tragedy, she concluded, to compromise the major premise of NIH—healthy human life—by undermining it with such vices as discrimination, verbal and physical assault, prejudice and harassment.

Martin, whose syndicated etiquette column appears in many newspapers, brought to NIH'ers "just what you always knew you needed—bioetiquette. Another set of regulations! And from etiquette—a discipline that is supposed to confine itself to regulating trivial activities, such as eating, or getting married. As a friend of mine here at the NIH put it, 'You mean if scientists don't give proper tea parties you want to take away their grants?' And that was a friend. Well, no. Since etiquette doesn't deal with crimes, such as fraud, falsification and plagiarism, it doesn't have punishments to fit crimes.

"Then why does etiquette have to mess with science which was getting along so happily without any manners?"

"It seems to me that you people have been talking an awful lot about etiquette for the last year or two—etiquette problems that arise from the balance of cooperation and competition necessary for doing science. Only you use euphemisms for etiquette: 'proper scientific

behavior,' 'guidelines,' 'decency,' 'fairness,' 'an unwritten code of conduct,' 'responsibility,' 'standards,' 'accepted scientific practice;' and you have another set of euphemisms for rudeness: 'questionable practices,' 'less than collegial behavior,' 'gray areas,' 'self-serving behavior' or 'deviation from normal practices.'

"You are talking about etiquette. The correct word for rules, not laws, that restrict individual impulse, by common consent, in order to make life comprehensible and reasonably harmonious is etiquette. I insist on calling it etiquette because it annoys people and because it clearly distinguishes rudeness from fraud. Compliance with etiquette is voluntary and the only punishment for people who flout etiquette rules, which they have a perfect right to do, is that they are considered unpleasant to have around. This may be something of a career disadvantage."

Martin targeted four categories of offense—disrespect, nonresponsiveness, sexual harassment, and discrimination—then asked why, if we all agree these are loathsome, do they still exist in the workplace?

(See *Town Meeting III* p. 31)



NIH director Dr. Bernadine Healy (c) invited two guest speakers to her third town meeting. They are columnist Judith Martin (l) and Rep. Connie Morella, who represents Maryland's 8th district, which includes NIH.

NIH Notes — May to September 1992

AWARDS AND HONORS

Dr. French Anderson, former chief of the Molecular Hematology Branch, NHLBI, received from the Federal Laboratory Consortium, the 1992 Award for Excellence in Technology Transfer ... **Dr. Robert S. Balaban**, chief of the Laboratory of Cardiac Energetics, NHLBI, has been elected president of the Society of Magnetic Resonance in Medicine ... **Dr. Reubin Andres**, NIA clinical director and chief of the Laboratory of Clinical Physiology at the institute's Gerontology Research Center, was honored at a Festschrift where he was described as "the true personification of a Renaissance man" ... **Dr. Peter Bennett**, chief of NIDDK's Phoenix Epidemiology and Clinical Research Branch in Arizona, has been awarded the 1992 Claude Bernard Lectureship by the European Association for the Study of Diabetes for outstanding career contributions to diabetes research ... **Dr. Samuel Broder**, NCI director, was presented by the National Coalition for Cancer Survivorship its Public Service Leadership Award, during National Cancer Survivors Day ceremonies on June 7. The award recognized Broder's "contributions, leadership, and strong advocacy on behalf of cancer patients throughout the country" ... **Dr. Peter Choyke**, of the CC diagnostic radiology department, has been honored by the Society of Uroradiology as first place winner of best research for his paper entitled "Natural History of Renal Lesions in von Hippel-Lindau Disease"—this work has led to a better understanding of the progression of the disease and improved treatment options for patients and their families ... **Dr. Robert L. Dedrick**, chief of the chemical engineering section, Biomedical Engineering and Instrumentation Program, NCI, has received the 1992 Founders' Award from the Chemical Industry Institute of Toxicology. The award honors his 25 years of research in the development of physiologic pharmacokinetics, primarily working in collaboration with NIH intramural investigators ... **Dr. John M. Dement**, director of the Office of Prevention, NIEHS, has been elected a fellow of the Collegium Ramazzini ... **Dr. Giovanni Di Chiro**, chief of NINDS's intramural Neuroimaging Branch, received

the Ottorino Rossi Award from the Neurologic Institute of the University of Pavia, Italy. The award was presented during an international meeting on "Functional and Therapeutic Neuroradiology," organized in honor of Di Chiro ... **Dr. Gene D. Cohen**, NIA acting director, received a National Association of Government Communicators Blue Pencil Award for his feature article, "The Famous Case from London, December, 1843—The Rest of the Story." It was published at Christmas in the *St. Louis Post-Dispatch* as "Depression is a Dickens of a Problem," an apt title for a piece that discusses Scrooge in terms of modern-day geropsychiatry ... **Dr. Cheng Dong** of the Biomedical Engineering and Instrumental Program, NCCRR, has received the 1992 Dr. Harold Larnport Award for Young Investigators from the Biomedical Engineering Society, one of the societies comprising FASEB. His nomination was based on his research on human leukocyte rheology, especially as reported in his recent paper "Cytoplasmic Rheology of Passive Neutrophils" ... **Dr. Susan Ellenberg**, chief of the Biostatistics Research Branch in the Division of AIDS, NIAID, has been elected president of the Society for Clinical Trials, an association focusing on methodological research relating to the design, conduct and analysis of clinical trials ... **Dr. Anthony S. Fauci**, NIAID director and also director of the NIH Office of AIDS Research and chief of the Laboratory of Immunoregulation, NIAID, was elected to the National Academy of Sciences. He also received several other honors. He was one of nine non-Danish scientists elected in April to the Royal Danish Academy of Sciences and Letters. The Big Brothers/Big Sisters of New York presented him with its "Sidewalks of New York" Award May 5. This annual tribute honors native New Yorkers who are role models for young people. The Order Sons of Italy in America established the Anthony S. Fauci Perpetual Scholarship, which was presented to a high school student recipient at the order's awards banquet in May. The Cornell University Medical College in New York presented on May 27 its Alumni Award of Distinction to him "in recognition of his extraordinary achievements as a physician, world-renowned scientist and research administrator. His life and work have brought honor and acclaim to his medical college." During commencement exercises on June 7 at the Arnold and Marie Schwartz College of Pharmacy and Health Sciences

of Long Island University he was awarded an honorary doctorate ... **Dr. Mary A. Foulkes**, a mathematical statistician in the Biostatistics Research Branch of the Division of AIDS, NIAID, has been honored with the 1991 Washington Statistical Association President's Award for outstanding contributions to the professional association ... **Dr. Joseph F. Fraumeni, Jr.**, associate director for epidemiology and biostatistics, Division of Cancer Etiology, was elected to the National Academy of Sciences' Institute of Medicine. He was also awarded the 1992 W.W. Sutow Visiting Professorship in Pediatric Oncology from the University of Texas M.D. Anderson Cancer Center in Houston ... **Dr. John I. Gallin**, director of NIAID's Intramural Research and chief of the Laboratory of Host Defense, has been elected president of the International Immuno-compromised Host Society ... **Dr. Ronald G. Geller**, director of NHLBI's Division of Extramural Affairs, recently received the first-ever "Chairman's Award" from the Marriott Foundation for People with Disabilities and TransCen, Inc. He received the award for his work in building the Bridges program which helps students with disabilities cross from school to employment at NIH ... **Dr. James Goedert** of NCI's viral epidemiology section was awarded the International LIFE Prize, July 21, at the eighth International Conference on AIDS in Amsterdam; he was honored for his research on mother-to-fetus transmission of the AIDS virus ... **Dr. Maureen I. Harris**, director of NIDDK's National Diabetes Data Group and chair of the NIDDK epidemiology coordinating committee, is the 1992 recipient of the American Diabetes Association's Kelly West Award for outstanding research in diabetes epidemiology ... **Dr. Ada Sue Hinshaw**, director of the National Center for Nursing Research, received the Distinguished Service Citation from the University of Kansas Alumni Association, and also an honorary doctorate from the University of Nebraska. Both awards recognized her leadership role and many accomplishments in the nursing community ... **Dr. Jay H. Hoofnagle**, director of the Division of Digestive Diseases and Nutrition and senior investigator in the liver diseases section of NIDDK, has been elected president of the American Association for the Study of Liver Diseases. The association, founded in 1951, is the leading scientific and medical organization concerned

with the pathobiology and clinical management of diseases of the liver ... **Dr. James Huff**, associate director for risk evaluation, NIEHS, has been elected a fellow of the Collegium Ramazzini ... **Dr. Peter Kador**, chief of NEI's Laboratory of Ocular Therapeutics, was recently awarded the Jack Beal Post-baccalaureate Alumni Achievement Award by the Ohio State University College of Pharmacy for his achievements in pharmaceutical research ... **Dr. Stephen I. Katz**, chief, Dermatology Branch, Division of Cancer Biology, Diagnosis, and Centers, was elected to the National Academy of Sciences' Institute of Medicine ... **Dr. Claude B. Klee**, chief, Laboratory of Biochemistry, Division of Cancer Biology, Diagnosis, and Centers, was elected to the National Academy of Sciences' Institute of Medicine. She also recently received the distinguished Women in Science and Engineering, Inc. Lifetime Achievement Award. This annual award recognizes significant contributions to science and acknowledges accomplishments in advancing the careers of other women scientists ... **Dr. Carl Kupfer**, NEI director, was named the 1992 recipient of the Lions Humanitarian Award, the highest honor presented by Lions Clubs International. He was presented the award in recognition of his outstanding achievements in fostering clinical research and prevention of blindness activities world-wide ... **Dr. Gertrude K. McFarland**, scientific review administrator of DRG's nursing research study section, has received an Award for Unique Contributions to the Advancement of Nursing Diagnosis from the North American Nursing Diagnosis Association for her "international leadership in advancing the knowledge base of the nursing profession," and for "her numerous publications" ... **Dr. Henry Metzger**, director of NIAMD's Intramural Research Program and chief of the chemical immunology section in the institute's Arthritis and Rheumatism Branch, was elected to the National Academy of Sciences ... **Dr. Carolyn Murdaugh**, senior investigator in NCNR's intramural program, who heads the Laboratory for the Study of Human Responses to Health and Illness and directs a major study of caregivers of elderly men with dementia, has received the Award of Merit from the American Heart Association for her contributions to developing AHA's national program ... **Dr. Joram Piatigorsky**, chief of NEI's Laboratory of Molecular and

(continued on p. 26)

(continued from p. 25)

Developmental Biology, has received his second award from the Alcon Research Institute for his outstanding contributions to vision research. He has also been chosen a Burroughs Wellcome visiting professor for the 1991-92 academic year. He also delivered on Apr. 24 the fourth Donald P. Abbott Memorial Lecture at the Hopkins Marine Station in Pacific Grove, Calif. The title of his talk was "Lens Crystallins: Innovations Associated with Evolutionary Changes in Gene Regulation in Vertebrates and Invertebrates" ... **Dr. David Rubinow**, NIMH clinical director, was honored with the annual Distinguished Clinical Educator Award at a Clinical Center grand rounds. The award is given each spring to the institute or clinical physician who, by votes of the clinical associates, has been an outstanding bedside teacher in the best traditions of clinical medicine ... **Dr. Lawrence Shulman**, NIAMS director, was presented a special award for the institute's support of research in orthopaedics by the American Academy of Orthopaedic Surgeons. The award plaque expressed appreciation for "leadership and support in enhancing and promoting orthopaedic research around the world" ... **Dr. John R. Stanley**, deputy chief of NCI's Dermatology Branch, has received the Alfred-Marchionini Research Prize from the Alfred-Marchionini Research Foundation for his "outstanding research in dermatology." He is the first American to receive this award ... **Mildred Steinberg**, a program assistant in NCI's Laboratory of Pathology, recently received an award from Montgomery County's Department of Family Resources, Division of Elder Affairs' Job Support for Seniors. The award, presented annually, recognizes outstanding older workers who have impressed their coworkers with their energetic and inspirational work behavior. She will be 78 this year and she has been at NIH since July 1961 with no plans to retire ... **Dr. Simeon Taylor**, chief of the NIDDK Diabetes Branch, has received the American Diabetes Association's Outstanding Scientific Achievement Award for 1992. This award is given annually to an individual under age 45 who has made an outstanding contribution to diabetes research. He received the award at the association's annual scientific meeting where he delivered the Eli Lilly lecture, entitled "Mechanisms of Insulin Resistance: Lessons from Patients with Mutations in the Insulin Receptor Genes" ...



NHLBI director **Dr. Claude Lenfant** (second from r) receives the Rosa Parks Award from members of the International Society on Hypertension in Blacks (ISHIB). They are (from l) **C. Alicia Georges**, ISHIB executive committee member, past-president of the National Black Nurses Association, and now with the division of nursing at Lehman College; **Dr. Charles Curry**, ISHIB executive committee member and professor of medicine at Howard University; **Dr. James Reed**, ISHIB president and professor of medicine at Morehouse Medical School; and **Dr. Elijah Saunders**, ISHIB board chairman and clinical director of the hypertension center at the University of Maryland School of Medicine.

Dr. George R. Uhl, chief of the Molecular Neurobiology Laboratory, NIDA, and associate professor of neurology and neuroscience at Johns Hopkins School of Medicine, is the winner of the 20th Mathilde Soloway Lecture Award in the Neurosciences. The award is sponsored by FAES. He presented a lecture entitled "Genes and Drug Abuse" on May 19 ... **Dr. Barbara A. Underwood**, NEI's assistant director for international program activities, has been selected as this year's recipient of both the Borden Award and the Conrad A. Elvehjem Award. In winning both honors, she was cited for her distinguished career in nutrition research and her leading role in vitamin A investigations worldwide ... **Dr. Sten H. Vermund**, chief of the Vaccine Trials and Epidemiology Branch in the Clinical Research Program of the Division of AIDS, NIAID, was recently named a fellow of the American College of Epidemiology. He is an authority on the epidemiology of parasitic diseases and sexually transmitted diseases ... **Dr. Thomas A. Waldmann**, chief, Metabolism Branch, Division of Cancer Biology, Diagnosis, and Centers, has been elected to the National Academy of Sciences' Institute of Medicine ... **Joyce H. Woodford**, deputy chief of the Financial Management and Information Systems Branch, NIAID, received the National Chapter Service Award from the Association of Government Accountants, a national professional group for government financial managers.

APPOINTMENTS AND PERSONNEL CHANGES

Dr. French Anderson, chief of the Molecular Hematology Branch, NHLBI, left NIH in September to move to Los Angeles (our next issue will have details) ... **Dr. Beth Ansel**, a faculty member at Purdue University in the department of audiology and speech sciences, has joined NIDCD as a program administrator, responsible for research grants in the extramural voice and speech program ... **Dr. Christine A. Bachrach** has been appointed chief of the Demographic and Behavioral Sciences Branch, Center for Population Research, NICHD ... **Dr. Stephen Bacharach** of the Clinical Center's department of nuclear medicine has been named to head the Image Technology Program of the Division of Computer Research and Technology. He will hold a joint CC/DCRT appointment, continuing to work at the CC and heading the imaging science group there ... **Karen M. Basnight** was recently appointed the equal employment opportunity (EEO) officer at NIGMS ... **Dr. Mohandas Bhat** has been appointed director of the NIDR Craniofacial Development and Disorders Program in the Extramural Program ... **Dr. Norman Braveman**, formerly with the NIH Office of the Director, has joined the Extramural Program of NIDR as the assistant director for program development ... **Dr. Carl W. Dieffenbach**, has been named chief of the Developmental Therapeutics

Branch in the Basic Research and Development Program of NIAID's Division of AIDS. The branch bridges basic and applied research in the field of developing therapies ... **Dr. Sherry Dupere** has joined the International Studies Branch as a scientific review administrator. This branch manages FIC's study section, which conducts the initial scientific review of Fogarty International Research Collaboration awards. She came to FIC from NIAID ... **Dr. Richard C. Eastman** has been appointed director of the Division of Diabetes, Endocrinology and Metabolic Diseases of NIDDK. An endocrinologist, teacher and diabetes researcher, he was chief of endocrinology at Georgetown University Hospital and most recently clinical director of NIDDK's Diabetes Branch ... **Dr. Lawrence M. Friedman** was recently appointed director of NHLBI's Division of Epidemiology and Clinical Applications. This division plans and directs a range of basic and applied behavioral research, clinical trials, demonstration projects, and epidemiological studies in disease prevention and health promotion ... **Dr. Lester S. Gorelic**, a fellow in the DCPC Cancer Control at NCI, has joined NCI as scientific review administrator within the prevention, epidemiology and control review section in the Grants Review Branch, Division of Extramural Activities ... **Dr. Jules Hallum**, director of the Office of Scientific Integrity, resigned from NIH on Aug. 15. The OSI was recently reorganized and moved out of NIH, and renamed the Office of Research Integrity ... **Dr. Milton J. Hernandez** has been named director of the Office of Science Training and Manpower Development in the Division of Extramural Activities, NIAID ... **Howard J. Hoffman**, special assistant for infant mortality research in the Division of Epidemiology, Statistics and Prevention Research, NIDCD, has been named chief of the Epidemiology, Statistics and Data System Branch. This branch was recently established within the Office of the Director, NIDCD, to conduct epidemiologic studies relating to deafness and other communication disorders, including hearing, balance, smell, taste, voice, speech and language ... **Dr. Hortencia M. Hornbeak** has been named chief of the Scientific Review Branch in the NIAID Division of Extramural Activities. Her duties include management and coordination of the scientific and technical review of grant applications submitted to NIAID in

the fields of microbiology, immunology and infectious diseases ... **Dr. Claire Hubbard** has been appointed program officer for Africa and the Middle East with the International Coordination and Liaison Branch. She came to NIH from the U.S. Department of State ... **Dr. Lynn Huerta**, most recently an assistant professor of audiology at Howard University during the 1991-1992 academic year, has joined the NIDCD staff as a program administrator in the Division of Communication Sciences and Disorders. She shares responsibility for research grants in the extramural hearing program ... **Gretchen S. Jones**, former chief of NHLBI's Administrative Services Branch, is now a management analyst in the Bureau of Health Care Delivery Assistance, a newly created unit in the PHS Health Resources and Services Administration ... **Dr. Donald A. B. Lindberg**, NLM director, has been appointed the first director of the National Coordination Office for High Performance Computing and Communication. He will hold both directorships concurrently ... **Dr. Lance A. Liotta** has been named NIH deputy director for intramural research; his appointment was effective July 6 (see story on p. 23) ... **Dr. Dennis Mangan** was recently named director of the NIDR Periodontal Diseases Program in the Extramural Program. He will oversee the research grants portfolio related to the causes, prevention, pathogenesis, diagnosis, and treatment of periodontal diseases. A recipient of an NIDR National Research Service senior postdoctoral fellowship, he had been with NIDR's intramural Laboratory of Immunology since 1989 ... **Dr. Michael R. Martin**, director of the Basic Cancer Biology Program at NCI for the last 6 years, has been named deputy associate director for program activities of NIGMS, where he will help set grant funding policies and procedures ... **Dr. Richard I. Martinez** has joined the NIGMS Office of Review Activities as the scientific review administrator for the Minority Access to Research Careers review subcommittee. Prior to this appointment, he was a research chemist at the National Institute of Standards and Technology ... **Maureen Mylander**, formerly a writer-editor in the NIH Office of Communications, has been appointed public affairs officer and director of the Office of Science and Health Reports at the National Center for Research Resources ... **Dr. Robert Nussenblatt** was recently appointed NEI scientific director.

He has been acting in that role for more than a year, and also serves as the director of NEI's intramural research program, clinical director, and chief of the Laboratory of Immunology ... **Dr. Mirilee Pearl** has become program officer for FIC's International Research and Awards Branch, where she is responsible for the program of international fellowships and grants in the biomedical and behavioral sciences. She was formerly at NHLBI ... **Kim Regan**, director of the Division of Policy, Planning, and Evaluation, ADAMHA, was recently named executive officer at NIAMS. In her new post she is responsible for the management end of the biomedical enterprise ... **Dr. Polly R. Sager** has been named assistant director of the Basic Research and Development Program in NIAID's Division of AIDS. In her new position, she will coordinate program interactions with industry and other drug sponsors and act as a liaison between the basic science program and treatment research components within the division ... **Dr. Jeffery A. Schloss** has joined the National Center for Human Genome Research staff as a program administrator in the Research Centers Branch ... **Dr. Rochelle Small** recently joined NIDCD as a health scientist administrator in the Division of Communication Sciences and Disorders. She shares responsibility for research grants in the extramural chemosensory program ... **Dr. Robert Spirtas** has recently been appointed chief of the Contraceptive and Reproductive Evaluation Branch, Center for Population Research, NICHD. He had been a senior scientist in this program since 1988 ... **Dr. J. Craig Venter**, chief of the receptor biochemistry and molecular biology section, NINDS, left NIH at the end of July to become director of the Institute for Genomic Research in Gaithersburg ... **Dr. Robert A. Whitney, Jr.**, has been appointed deputy surgeon general, effective Sept. 1. He was the first director of the National Center for Research Resources, formed early in 1990 by a merger of the NIH Division of Research Resources (DRR) and Division of Research Services (DRS). He had directed DRS since 1984 and became acting director of DRR in late 1988. During the same periods, he also served as director of the NIH Office of Animal Care and Use, established in 1987, and chaired the PHS interagency research animal committee. He is an assistant surgeon general in the PHS

(continued on p. 28)

(continued from p. 27)

Commissioned Corps and served as the corps' chief veterinary officer 1984-1989 ... **Dr. Paul B. Wolfe** recently joined the staff of NIGMS as a program administrator in the Genetics Program Branch. A former assistant professor of biological chemistry at the University of Maryland School of Medicine in Baltimore, he will administer grants relating to the replication, recombination, and repair of DNA ... **Fred Wong** has been named budget officer and chief of the financial management office in the Division of Research Grants. He was previously with NIH's Division of Financial Management as a budget analyst.

RETIREMENTS

Joan Ascensio retired recently as secretary to the director, NINDS, after 32 years at NIH and more than 40 years of government service. In 1972, she came to NINDS, where she has worked with Dr. Murray Goldstein for 20 years, first in his position as director of extramural programs and later in his role as institute director. Her retirement plans include traveling, pursuing her interests in golf and tennis and spending more time with her grandchildren ...

Damara Bolte has retired after 33 years of providing and overseeing animal care at NIH. She was chief of the genetic colony unit (rodents and rabbits) in the Scientific Services Branch of the Veterinary Resources Program, NCRR. During her long service in the Bldg. 14 complex of laboratory animal facilities, she took part in the transformation of her section's mission and physical environment. Her retirement plans include spending more time on the showing and raising of dogs and the sculpturing of limited-edition bronzes, primarily of dogs ... **Gerri Blumberg**, chief, NIH Broadcasting Services, Office of Communications, OD, has retired after 20 years and returned with her husband Ralph to her home town of St. Louis, Mo. She came to NIH in 1972 as a clerk in the laboratory of Dr. Elizabeth Weisburger, NCI. In 1977 she moved to the Office of Communications and did interviews with scientists, coordinated all broadcast media and was the NIH contact person for national television shows ... **Robert Ellett** has retired after 25 years of service at NIH. He has worked in the food management and cost analysis section (now called the Central Services Accounting Branch), the accounts payable section and the accounting section of the Operations

Accounting Branch. He was involved in establishing the first DELPRO reviews for finance and continued reviews in the various administrative offices of all the NIH ICDs ... **Dr. Hernon H. Fox** of NCI, who spent 40 years in government service, including 4 years in the military, retired on July 3. He worked with the Review Logistics Branch of the Division of Extramural Activities since the branch's inception. In retirement, he plans to relax by traveling, reading books and articles of a nontechnical nature, woodworking and tracing his genealogy ... **Margaret Gierszewski** has retired after a career of government service spanning more than 45 years. Her early career included stints with the War Department, the Pentagon, and Gen. Eisenhower. After taking a break to start raising a family, she came to NIH as a transcriptionist with the CC's medical records department. Later she moved to the reception desk, then to admission, where she completed the balance of more than 35 years with NIH ... **Herbert Horrell**, equipment specialist in the Standards and Specifications Branch, OD, retired May 1 after a 49-year federal career. In 1965 he started his second government career at NIH, where he served for more than 26 years. While at NIH, he spent 4 years as an engineering technician, 10 years as manager of the NIH Scientific Equipment Rental Program, and 8-plus years as an equipment specialist in SSB. He says he will miss NIH's people and mission, but he looks forward to enjoying retirement ... **Taysir Jaouni** is retiring after 30 years at NIH. He has worked in NHLBI since coming to NIH in 1960. He started work with Nobel Laureate Marshall Nirenberg and later moved to the Laboratory of Biophysical Chemistry with Dr. Henry Fales in 1969, where he is listed as an author on papers in many fields. His retirement plans include returning to the Middle East where he was born and traveling in Europe. He will continue to manage the farm he owns in Pennsylvania ... **Brickie Le Roy**, secretary to the NIM's deputy director, Kent Smith, for 12 years, has retired. Her career with the government started in 1945 with the Department of the Army, and also included 17 years with NIMH as secretary to the chief of the Laboratory of Physiology (1963-1980) ... **Willie Perkins**, supervisor in the animal health and care section in NINDS' Division of Intramural Research, recently retired from NIH, marking 37 years of dedicated service. He began his career as

a laboratory technician on Mar. 7, 1955. In the mid-1970's he transferred to the animal health and care section, where he cared for a wide variety of animals including cats, dogs, monkeys, rats, mice, hamsters, and chinchillas ... **Dr. Roger J. Porter**, deputy director of NINDS, retired on June 30, ending more than 20 years of service in the NIH community and the PHS Commissioned Corps. On July 1, he became vice-president of clinical pharmacology at Wyeth-Ayerst Laboratories in Philadelphia ... **Alan Rich** of the Biomedical Engineering and Instrumentation Program (BEIP), NCRR, retired after 37 years of federal service. He first served as a interdisciplinary physicist at the U.S. Naval Research Laboratory and then as a mechanical engineer at NIH. He has worked at BEIP for 15 years designing instrumentation for specific needs of NIH investigators. He is looking forward to devoting more time to composing music, playing the piano and inventing devices ... **Barbara Shepler**, a computer program analyst at NHLBI, retired after 24 years at the institute. She helped steward the institute through the information revolution. Her retirement will take her back to the Harrisburg area, where she expects to pursue her many interests, particularly gardening, crafts, and travel ... **Dr. Roald J. Shern** has retired after 21 years with the PHS Commissioned Corps and NIDR. His career at the institute has spanned laboratory, epidemiological, and clinical research, beginning in NIDR's National Caries Program and ending in the Clinical Investigations and Patient Care Branch of the Intramural Research Program. He and his wife are going to stay in the area, and he will continue with some consulting work.

DEATHS

Catherine "Citty" Bailey, 80, a retired program assistant at NIH, died of cancer June 12 at the Carriage Hill nursing home in Bethesda. She retired in 1981 as program assistant in the division of lung diseases at NHLBI. She worked at NIH for nine years ... **Dr. Harry Eagle**, 86, whose method for growing cells in test tubes was a breakthrough for biological research, died June 12 of cancer at United Hospital in Port Chester, N.Y. He served as the scientific director of NCI from 1947-49, then chief of the experimental therapeutics section of the National Microbiological Institute from 1949-59 and chief of the Cell Biology

Laboratory at NIAID from 1959-61. At NIH in 1959, he formulated the compounds needed to sustain the reproduction of mammalian cells in the laboratory, a mixture that became known as Eagle's growth medium. It opened the way to new research on viruses, genetic defects and cancer. He left NIH in 1961 to join the Albert Einstein College of Medicine and became founding chairman of its Biological Sciences Division, associate dean for scientific affairs and founding director of its Cancer Research Center. In 1987, he was awarded the National Medal of Science ... **Earline Alice Efird**, manager of the Clinical Center R&W store from August 1970 to April 1988, died on Mar. 17. She had first started to work in the department of nursing at NIAMD in 1956. From December 1956 to June 1968, she worked at the Dental Clinic ... **Catherine Cecelia Ellett**, 64, a retired grants technical assistant at NIH and a former Montgomery County public school art teacher, died July 23 at Suburban Hospital of thrombocytopenic purpura. She retired from NIH in 1989 after 10 years' service ... **Waldo Groves**, 44, an instrument maker foreman in the Biomedical Engineering and Instrumentation Program, NCCR, and alternating acting chief of BEIB's mechanical instrument fabrication section, died June 27 following a heart attack. He joined BEIB as a machinist in 1978. He developed a strong skill in computer use and applied his knowledge and interest to improvements in managerial procedures in his own section and throughout SES ... **Terry Hammond** died June 6 in St. Petersburg, Fla. She started to work at NIMH in 1952 as a secretary and retired from NIMH in 1977 as an administrative officer ... **Lois Jeanette Hinde**, 61, former grants management officer for NHLBI, died unexpectedly on Jan. 29. She began her career at NIH in 1963, working in various capacities within NHLBI until she became deputy chief of the Grants Operations Branch in the Division of Extramural Affairs. In 1984, she became the grants management officer for the Division of Research Resources. She worked in DRR until 1986, when she was selected chief of NHLBI's Grants Operations Branch. She continued to work for NHLBI until her retirement on Oct. 1, 1991 ... **Dr. Warren V. Huber**, 86, a former director of the neurology service at the Veterans Administration, died of heart and circulatory ailments July 5 at his home in San Francisco. From 1970 to 1972, he was

a researcher at the National Institute of Neurological and Communicative Disorders and Stroke. After he retired from the VA in the early 1980's he moved to San Francisco ... **Walter S. Hunter**, a laboratory technician at NIH until his retirement, died of cancer Aug. 21, at his home in Rockville ... **Judith B. Kress**, 57, a retired editorial assistant at NCI, died of emphysema May 27 at Washington Hospital Center. She began working at NIH in 1981. Earlier she had been a clerk-stenographer for the Department of the Army ... **Rose Lieberman**, 79, a pioneer in the field of immunogenetics during an NIAID career spanning 30 years, died in Hallandale, Fla. on May 18. She joined the Laboratory of Clinical Investigation at NIAID in 1952. She set up the first clinical microbiology lab at NIAID, and then returned to the LCI after 2 years to commence her work with allotypes—the genetic markers of individual classes of antibodies—which laid the groundwork in the 1960's for a generation of scientists who have further illuminated the role of the genes involved in the immune response. In 1968 she joined the Laboratory of Immunology. She retired in 1982 ... **Garnett H. Mills**, 87, a retired welder at NIH, died June 12, at his home in Rockville ... **Dr. Alan Morrison**, 49, a member of the department of community health at Brown University, and an adjunct professor of epidemiology at the Harvard School of Public Health, died of cancer at the end of May. He was chairman of the study section on epidemiology and disease control at NIH from 1986 to 1988 ... **Dr. Allen Newell**, 65, a professor of computer sciences at Carnegie Mellon University, died of cancer July 19 at a hospital in Pittsburgh. He was a pioneer in the field of artificial intelligence. From 1967 to 1971, he was a member of the computer science study section at NIH ... **Stanley R. Nicholson**, 65, a carpenter at NIH for 35 years until his retirement, died Aug. 24, at his home in Gaithersburg ... **Dr. W. Henry Sebrell**, 91, NIH director from 1950 to 1955, died of cancer Sept. 29 at his home in Pompano Beach, Fla. (our next issue will have details) ... **Virginia E. Seils**, 60, a retired NIH employee, died in Newburgh, N.Y. on Aug. 1, from injuries caused by a traffic accident ... **Harold P. Simpson**, 72, a retired grants official at NCI and a retired lieutenant colonel in the Air Force Reserve, died Aug. 15 at the Althea Woodland Nursing Home in Silver Spring. He had

Parkinson's disease. He joined NIH in the 1950's and was chief of the Research Contracts Branch at NCI when he retired in 1979 ... **Constance H. Tolkan**, 67, who in 1954 founded the Door Store in Washington with her husband, Norman N. Tolkan, died of cancer Apr. 15 at her home in Washington. In 1952 she was an editor of the National Cancer Institute's journal until she and her husband founded the Door Store ... **Dr. John A. Trautman**, 90, director of the Clinical Center when it first opened, died at his home in Memphis, Tenn. He entered the PHS in 1939, serving his internship at the Chicago Marine Hospital. Upon leaving the CC in 1954, he was the medical officer in charge of the PHS hospital in Fort Worth, Tex. He retired from the PHS in 1964 to join the State Health Department of Louisiana. He studied agents to treat cyanide poisoning; artificial fever therapy for venereal diseases, leprosy, inflammatory eye conditions, and arthritis; and arsenic compounds and sulfonamides for venereal diseases ... **Dr. Herbert H. Vreeland III**, 72, an anthropologist who retired in 1985 as a social science analyst with the Center for Studies of Metropolitan Problems at NIMH, died of cancer June 1 at his home in Bethesda. He worked at NIMH for 10 years ... **Dr. Charles A. Walker**, 56, director of NLM's Office of Outreach Development Medicine, died May 16 at Shady Grove Adventist Hospital after a heart attack. He joined the staff at NLM in 1991. At NLM, he was heading an effort to connect health professionals, many of whom practice in rural and inner-city minority communities, to the library's computerized medical information resources. Prior to that he had been chancellor of the University of Arkansas at Pine Bluff for 5 years. From 1974 to 1986, he was dean of the college of pharmacy and coordinator of the health science center at Florida A&M University ... **Dr. Margaret Gutelius Watt**, 84, a pediatrician who was the wife of Dr. James Watt, head of NHI from 1952 to 1961, died of a stroke Aug. 15 at Norfolk General Hospital in Virginia. She and her husband, who survives her, moved to Norfolk in 1989 from Fairlee, Vt.

The NIH Alumni Association recently received from Mrs. Mary Calley Hartman contributions in memory of Earline Alice Efird and Terry Hammond.

NIH Retrospectives



Autumn 1952

A survey of property and supply management procedures was begun at NIH. It is estimated that there are over 30,000 pieces of scientific apparatus at NIH ... Bids were recently opened for an apartment building to be constructed at NIH to house the NIH staff so that they will be available to meet emergencies in connection with patient care at the Clinical Center ... The prediction of Clarence Israel, the softball team manager, for a successful season was accurate. The team was crowned champions of the District Athletic League for 1952.



Autumn 1962

The first self-service "store" was opened. Located in Rooms B1E40 and B1E42 of Bldg. 31, the new store will be operated on the basis similar to that of the large food and drug chain stores ... Dr. Elias Elvove, 79, a former chemist on the staff of the Epidemiology and Biometry Branch, NIDR, died June 25 at his home in Washington ... The Labor-DHEW appropriations bill which was passed by Congress Aug. 2 allowed NIH a total of \$880,800,000 in new obligating authority for Fiscal Year 1963. The NIH appropriations represented an increase of \$142,465,000 over the 1962 appropriations of \$738,335,000 ... The Aug. 28, 1962, issue of the *NIH Record* presented

changes in format. The *Record's* distribution has increased from 4,800 to 11,300 ... Congress authorized the establishment of two new research institutes at NIH—the National Institute of Child Health and Human Development and the National Institute of General Medical Sciences.



Autumn 1972

NIH withstood the effects of Hurricane Agnes nicely according to Thomas Cook, chief of the Maintenance and Landscaping Section, Plant Engineering Branch ... The National Cancer Institute and the National Heart and Lung Institute have been elevated to Bureau level within NIH effective July 27 ... Dr. Christian B. Anfinsen, chief of the Laboratory of Chemical Biology, National Institute of Arthritis, Metabolism, and Digestive Diseases, has been chosen co-winner of the 1972 Nobel Prize for Chemistry.

The NIH Record

U.S. Department
of Health,
Education, and
Welfare

September 18
1972
Vol. XXII
No. 19

National
Institutes
of
Health

Autumn 1982

Dr. James B. Wyngaarden was officially sworn in as the 12th Director of NIH on June 21 ... In August an NIH working group has been formed to aid in controlling the current epidemic of acquired immunosuppression, opportunistic infection, and Kaposi's sarcoma ... To mark its 20th anniversary, the National Institute of General Medical Sciences is inaugurating a recurring lectureship named in honor of Dr. DeWitt Stetten, Jr.

Your Memories and Mementos Wanted by the Clinical Center

Many alumni have devoted large chunks of their careers to NIH and have stored a collective treasure trove of anecdotes and mementos about their experiences in the Clinical Center. In preparation for the 40th anniversary of the Clinical Center's intramural clinical research program next July, the Clinical Center is preparing a history of the program. "The Clinical Center has not had a history done before, and now is the time to do so, before more people retire," says Dr. Richard Mandel, a public historian who has been contracted by the Clinical Center to conduct the historical research. He needs your help in gathering materials for displays and is particularly interested in the following:

- photographs, laboratory equipment, or memorabilia
- names and addresses of former coworkers
- individuals willing to share personal reminiscences and mementos, or verify sources
- departmental administrative records, news clippings, letters from people now famous.

Mandel stresses that all items would be on *loan*. "They will be well cared for, and given back at the end of the exhibit," he says. There is a formal process for loaning an item to ensure its protection.

Take this chance to "go down in history"! If you can provide any of the above, or if you would like to be included on the mailing list for the celebration, please contact Colleen Henriksen, chief, Clinical Center Communications, Bldg. 10, Rm 1C255, NIH, Bethesda, Md. 20892, or call her at (301) 496-2563.

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update*.

Name

Home Address

Home phone

News. Include dates/position at NIH and photo if possible.



Suggestions for newsletter or NIHAA.

Town Meeting III (continued from p. 24)

Underlying her solutions to these bugaboos is a comprehension of the differences between social and professional relations. The artificial distance created by good manners is no more phony than the illusion that all coworkers are automatically great friends, she argued. Using the image of a doctor's physical exam as a metaphor for addressing differences in professional status, she said, "If one of you is naked and the other one is clothed, then it is assumed that the relationship is professional. If both of you are naked, it is likely that the relationship is social."

Martin concluded that proper workplace manners are epitomized by coworkers who are conducting a discreet affair—their workplace conduct is always irreproachable.

In addition to Healy and the guest speakers, eight panelists representing

different groups at NIH offered their views on the meeting topic.

Morella spoke next, having arrived a bit late due to a press conference downtown. Healy informed the audience that Morella had recently been voted, in a magazine survey, "one of the most polite people in Congress."

Morella painted a statistical picture with which many NIH workers are quite familiar—not only is there no such thing as a “typical family” anymore, but parents, whether single or together, are spending more time at work than at home.

“Working parents spend an average of only 17 hours a week with their kids, which is a 40 percent drop since 1965,” she reported. “Another survey shows that one in four adults is responsible for (the care of) an older relative. Government needs to provide more family-

friendly policies such as flextime, shared jobs, family and medical leave, and day care. These initiatives will make our federal community more tightly knit."

Morella said she is meeting with the Office of Personnel Management and the General Services Administration to implement these policies. She said she will use her membership on the National Council on the Public Service to advocate for federal workers against such policies as a ban on honoraria; she also supports bills taking equal employment opportunity suits out of the agencies and into the Equal Employment Opportunity Commission, and lifting the "glass ceiling" from women in science and engineering careers. Increased productivity in the workforce will be the result of these initiatives, she said, concluding, "We want a workforce with no harassment in it."



If You Are Not Yet A Member of the NIHAA [Clip and mail]

NIHAA Office
9101 Old Georgetown Rd.
Bethesda, MD 20814

I would like to apply for membership in the NIH Alumni Association. My NIH position:

(Title) (Organization)

from _____ to _____ My membership dues of \$ _____
(Years)

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(Please type or print)

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You have received a dues renewal notice from NIHAA. Please return it promptly. Dues are an important source of our income and we need your continued support.

RENEW
NOW

Memberships

Please indicate membership desired:

Type	Annual Dues
Alumni (for past NIH employees only)	\$25.00
Associate (for current NIH employees)	\$25.00
Friends (for individuals interested in NIHAA's goals)	\$25.00
Life	\$250.00

Donations or bequests are welcome.

Please indicate amount here

\$ _____

NIH Alumni are people who have worked or studied at NIH. Present NIH staff are invited to join as associate members.

NIHAA Update
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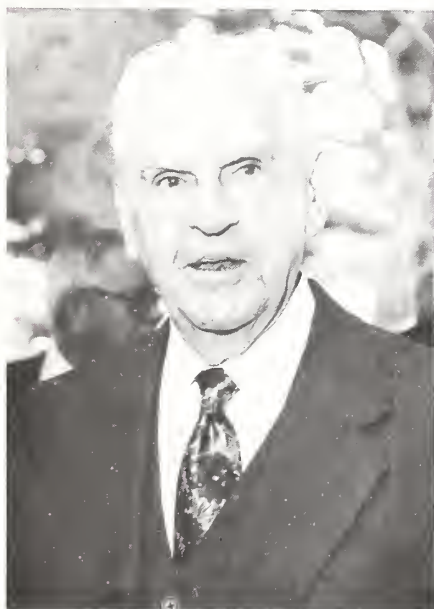
These architect's drawings of the proposed Bldgs. 3, 1, and 2 for the new NIH campus in Bethesda, appeared in the *Washington Star*, Aug. 26, 1937.

NIHAA Presents Its First Public Service Award to Chairman Natcher

Citing his "active advocacy of biomedical research as a necessary national investment" the NIH Alumni Association (NIHAA) has selected Rep. William H. Natcher (D-Ky.), chairman of the House Appropriations Committee, to receive its first NIHAA Public Service Award. The award was established in 1992 by the NIHAA board of directors to recognize individuals who have rendered outstanding service through strengthening public understanding and support of biomedical research.

Chairman Natcher, now in his 40th year as a member of Congress, has been a friend and champion of NIH during his long tenure as a member of the appropriations committee. Prior to

(See Natcher p. 2)

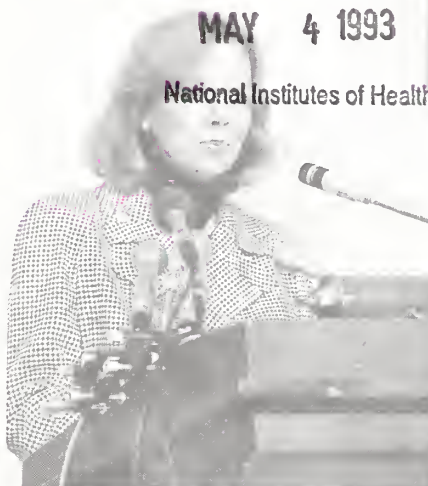


Rep. William H. Natcher (D-Ky.) is the first recipient of the NIHAA Public Service Award.

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MAY 4 1993

National Institutes of Health



NIH director Dr. Bernadine Healy announces her resignation at a press conference at Stone House on Feb. 26.

'Deeply Honored To Have Served'

Healy Announces Plans To Leave NIH by June 30

By Rich McManus

NIH director Dr. Bernadine Healy announced, with clear reluctance, on Feb. 26 that she will resign her position by June 30.

"Before I went to bed last night, I looked out the window and hoped I'd see enough snow that work would be called off today," she told a gathering of reporters, OD staff and ICD directors at Stone House before reading a statement (see sidebar on p. 21) announcing her resignation.

As a snowfall too meager to cancel federal labors blanketed the campus, Healy said it was made clear to her, in conversations with HHS Secretary Donna Shalala 2 weeks earlier, that President Clinton had other plans for NIH leadership.

(See Healy p. 20)

Liotta Recharting Course for Intramural Research at NIH

Since he became NIH's new deputy director for intramural research in July 1992, Dr. Lance Liotta has left his imprint on virtually every facet of NIH campus research life—from paychecks to parking, and protocol review to policies on consulting.

"I've had a very good experience here," notes Liotta. "I want everyone to have that same experience." Liotta is a 17-year veteran of NIH's Intramural Research Program (IRP). He has spent most of his scientific life investigating how cancer cells metastasize and invade new tissue—the main cause of death in cancer patients. Liotta wants every NIH scientist to have what he enjoys himself—a stimulating, rewarding career at the cutting edge of modern science.

Liotta's highest priority in his new job is "to protect and enhance the greatest commodity we have—creative

(See Liotta p. 18)

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Natcher (continued from p. 1)

his elevation to the chairmanship of the full appropriations committee at the opening of the current session of Congress, he had served 14 years as chairman of the appropriations subcommittee concerned directly with NIH funding.

First elected to Congress in 1953, Natcher has served through 8 presidents, 38 appropriations committees and 7 NIH directors. He has seen the NIH budget grow from \$73 million when he entered Congress to nearly \$9 billion in 1992.

In presiding over the annual budget hearings, he has demonstrated consistently his ardent interest in biomedical research and rare understanding of its long-term implications for better health.

His Congressional colleagues took official notice of his strong support for NIH by naming in his honor a large new facility that will accommodate on campus the large number of extramural staff now housed in leased space throughout the area. It will also have a 1,000-seat auditorium and conference center. Ground was broken for the



NIH director Dr. Bernadine Healy, then-DHHS secretary Dr. Louis Sullivan, Rep. Steny Hoyer (D.-Md.) and Rep. Natcher (I to r) share a few moments before the groundbreaking ceremony.

William H. Natcher Bldg. on Sept. 11, 1992, the honoree's 83rd birthday.

At the groundbreaking ceremony, then DHHS secretary, Dr. Louis Sullivan, predicted, "This building certainly will be a beacon of enlightenment and of hope and of great activity, not only for this campus but also for our whole nation's biomedical research enterprise." The Natcher Bldg., he continued, "will go a long way toward quickening and improving the process of health research."

The NIHAA Public Service Award will be presented to Rep. Natcher in a ceremony this spring.



At the groundbreaking ceremony at NIH on Sept. 11, 1992, Natcher stands before a drawing of the building named for him.

Thank you to our friends

The NIHAA warmly welcomes the following organizations that joined in the category of "Friends" and wishes to acknowledge its appreciation for their generous support:

American Association of Retired Persons
University of Alabama School of Medicine at Birmingham
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Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814, (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or suggestions, please drop a note to the editor. We reserve the right to edit materials.

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Move Over Elvis

NIH'er Bernhard Witkop's Efforts To Have Percy Julian Stamp Issued Prove Successful

By Carla Garnett

In the mid-1930's in Munich, 20-year-old college student Bernhard Witkop came across some "exciting" research published by a budding American chemist. So interested and impressed was he by the American's research that he initiated what would become a 38-year correspondence and friendship with the chemist, Dr. Percy L. Julian.

During those years, years in which the battle for civil rights—Julian was Black—became entangled with the usually pristine pursuits of science, Witkop became Julian's friend and unofficial champion.

This is a Black history tale that comes long before Black history month, but more, it is the story of one distinguished scientist's unselfish efforts on behalf of one of his colleagues. Certainly, whenever he could advance Julian's name and research, Witkop did.

Not knowing Julian was Black, and then not realizing the chemist's heritage would matter in America's research community, Witkop began writing to Julian, encouraging him to share his work. Even when Witkop finally met the chemist, he did not fully understand the nonscientific roadblocks Julian had faced and overcome during his career.

In 1974, Witkop was instrumental in bringing Julian to NIH to deliver the NIH Lecture; it was the first time the talk was given by an African American.

Several years earlier, Witkop had launched an effort to elect Julian to the National Academy of Sciences—a rarity for scientists in private industry and almost unheard of for a scientist of



The Percy Julian Commemorative Stamp issued on Jan. 28, 1993, by the U. S. Post Office.

color. In 1973, the 5-year campaign proved successful.

In 1981, again at Witkop's urging, a portrait of Julian, who died in 1975, was commissioned by the Ciba-Geigy Corp. and unveiled at NIH in recognition of Julian's contributions to the field of organic chemistry.

Now, more than 17 years after the American chemist's death, Witkop has completed another mission—this time it took almost a decade—dedicated to the work and legacy of Julian. On Jan. 28, 1993, the U.S. Post Office issued the Percy Julian Commemorative Stamp.

"It took about 10 years of hard pushing," Witkop said, smiling with humor and satisfaction. "And when I saw that Elvis Presley had gotten one, I nearly lost all hope."

(See Julian p. 4)

Julian (continued from p. 3)

Dr. Anna Julian, Percy's widow, wrote Witkop to thank him for his efforts. "I understand why Percy always thought of you not only as a great chemist," she said in her note, "but also as a very special human being."

One of only two active researchers to claim the title NIH honorary scholar, Witkop considers the issuance of the Julian stamp as both a personal victory and part of the professional legacy he left when he retired from NIH in December 1992 after a 42-year science career. Throughout his self-appointed quests for Julian, the 75-year-old scientist frequently referred to the optimistic words of his colleague, especially during times when Witkop's determination flagged:

"There is no problem that cannot be solved by hard work and dedication," Julian often said, and according to Witkop, fervently believed.

"Those are important words for today's generation of Black people," said Witkop, a researcher in NIDDK's Laboratory of Chemistry, who, in the 1960's with colleague Dr. John Daly, discovered the structure of unusual venoms of frogs from South America. "I do not think many young people are willing to buy this philosophy."

Somewhat of a Julian historian, Witkop in 1980 wrote a touching biographical memoir that was published by the National Academy of Sciences Press. Witkop also donated his vast correspondence, which in sheer volume is tantamount to a Julian archives, to the Beckman Center for the History of Chemistry in Philadelphia.

The scientific exchange between the two continued and expanded with Witkop's arrival at Harvard University in 1947. Witkop once wrote these words to characterize the fellowship that encompassed their common research interests and flowered into a



Dr. Bernhard Witkop

friendship woven together with human understanding as well as scientific inquiry:

"In the treasury of letters received from Percy Julian over a time span of 30 years, the woof of chemistry and the warp of the human condition interweave to form a fabric that shows Percy Julian the scientist to be as great as, and inseparable from, Percy Julian the humanist."

Phi Beta Kappa keyholder and valedictorian of his 1920 graduating class at DePauw University in Chicago, Julian received his master's degree on an Austin fellowship from Harvard in 1923, where, because he was Black, he was later refused a faculty position.

Almost 50 years after that setback, Julian continued to speak enthusiastically about the country that not only made it difficult for him to acquire formal training, but also hesitated to recognize the training once it had been achieved.

"I am telling you that this is a wonderful time to be living—a day of great opportunity," he said, speaking in 1972 to a young Black student at the dedication of a lab in Julian's name at MacMurray College in Jacksonville, Ill. "The country has changed course. Don't nurse your anger, but get together and help make this a really united nation." Twenty-four years before, he had spoken at the same college in a town where Blacks were not allowed to stay overnight in the hotel.

Profoundly disappointed at the rejection by Harvard, but not to be stopped, Julian took a chemistry professorship in 1926 at the then all-Black West Virginia State College. By 1929, he had moved abroad to study in Vienna on a Rockefeller fellowship he received while teaching at Howard University. Fluent in German, Julian received his Ph.D. in 1931 in Vienna and promptly continued his research at the Glidden Company on the chemical components of the soya bean. In the 1970's, he served as a counselor on the advisory board of the National Institute of Arthritis and Metabolic Diseases.

Among his many accomplishments were two important contributions to biomedical chemistry: the discovery of a more economical way to extract steroids from soybean oil to produce sex hormones and the development of a way to produce cortisone synthetically in large quantities at reasonable costs.

Witkop said beyond Julian's professional successes in the face of overt prejudice, the chemist's attitude is what made him truly impressive—and worth the tremendous effort Witkop put forth on his behalf.

"He was such a convivial, charming person, possessing such drive and contagious optimism to forge such a spectacular career," said Witkop. "Among his many friends and admirers, I was privileged to have been one of them."

Clinical Center 40th Anniversary Fete Scheduled for July

On July 8 and 9, 1993, the Warren Grant Magnuson Clinical Center will host a celebration to honor the 40th anniversary of NIH intramural clinical research at the CC. This will mark the anniversary of the first patient admission to the facility on July 6, 1953.

The program will feature a lecture for the public on Thursday evening, July 8, by Dr. Stephen E. Epstein, chief, Cardiology Branch, NHLBI, and a day-long scientific symposium on Friday, July 9. Speakers will include Dr. Donald Fredrickson, former NIH director, on the history of the CC; Dr. French Anderson, formerly of NHLBI, on gene therapy; Dr. Samuel Broder, NCI director, on cancer advances; and a reception with informal presentations by several Nobel Prize winners associated with NIH.

In conjunction with the celebration, the CC is producing a historical exhibit, a videotape, and a booklet describing the history of the intramural clinical research program.

This logo has been selected for the anniversary.



If you wish further information, or if you would like to be included on the mailing list for the celebration, please contact Colleen Henrichsen, chief, Clinical Center Communications, Bldg. 10, Rm. 1C255, NIH, Bethesda, Md. 20892, or call (301) 496-2563.

Calendar of Exhibits and Upcoming Events

FEBRUARY—APRIL

An exhibit on "The Proud Profession: Nurses in Federal Service" is on display in the front lobby of the NLM (Bldg. 38, 8600 Rockville Pike) through Apr. 23. The display demonstrates with books, photographs, films, and memorabilia the various ways that nurses have served the federal government from the Civil War to the present, both in the military and civilian sectors. The materials are from the History of Medicine Division, NLM, the National Museum of Health and Medicine, and Historical Audio/Visuals Collection, NLM. For further information about the exhibit call Dr. Stephen Greenberg at the History of Medicine Division, NLM, (301) 496-5405.

APRIL

The NIH Lecture will be on Thursday, Apr. 29, 1993, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker will be Dr. Richard Klausner, chief of NICHD's Cell Biology and Metabolism Branch. He will speak on "Iron, RNA, and Gene Expression: Solving the Dilemmas of a Toxic Nutrient."

MAY

The 6th Paul Ehrlich Lecture is scheduled for Wednesday, May 5, 1993 at 4:00 p.m. in Lipsett Amphitheater, Bldg. 10. The speaker is Dr. Gunter Blobel of Rockefeller University who will talk on "Protein Traffic Across Intracellular Membranes."

The NIH Lecture will be Wednesday,

May 12, 1993, at 3 p.m. in Masur Auditorium, Bldg. 10. Sir Gustav Nossal of the Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia, is speaker. He will talk on "Self Recognition: Recent Insights into the Deepest Puzzle in Immunology."

The Rollo E. Dyer Lecture will be on Wednesday, May 19, 1993, at 3 p.m. in Masur Auditorium, Bldg. 10. Dr. Anthony S. Fauci, NIAID director, will speak on "Immunopathogenic Mechanism of HIV Infection."

NIHAA EVENTS

The annual meeting of the NIH Alumni Association (NIHAA) will be held on Saturday, May 15, 1993, from 1:00 to 4:30 p.m. at the Mary Woodard Lasker Center (the Cloister, Bldg. 60). Invitations will be mailed to local chapter members in April.

For more information about various lectures and events at NIH, call (301) 496-1766. For information about NIHAA call (301) 530-0567.

RENEW NOW

RENEW NOW

You will be receiving a dues renewal notice from NIHAA in May. Please return it promptly. Dues are an important source of our income and we need your continued support.

RENEW NOW

RENEW NOW

Combining 'Brilliance and Collegiality'

NIH's Spirit Lauded During 6th Annual Research Fete

By Carla Garnett

The agency's annual under-the-tent affair—the NIH Research Festival—drew campus colleagues and would-be collaborators en masse for the sixth time since 1986. Packed chock-full with 31 workshops, five symposia, four poster sessions and 2 full days of scientific equipment demonstrations, the 4-day celebration of NIH's intramural program last fall provided the essence of what many researchers come here expecting—a forum for establishing successful partnerships with talented colleagues.

"That's our business at NIH today," said NIH director Dr. Bernadine Healy, in opening remarks, "to provide brilliant scientists with brilliant colleagues, to give you not just the tools and the labs and budgets to do your work, but to give you as well the interaction with professional companionship that turns ideas into discoveries."

Citing the late NIH'er Dr. Joseph Goldberger's hypothesis about a "pellagra-preventive factor" that, after his death, led his colleagues to discover niacin, the "cure" for the chronic disease, Healy extolled the virtues of collaboration. Goldberger's brilliance, by itself, only scratched the surface of the problem, she said.

"Our research festival celebration this week is a perfect demonstration of both the brilliance and collegiality we have on this campus," Healy continued. "Where else could you hear about so much important work and find so many people turning out to hear about it? The companionship of brilliance was the shaping idea behind NIH in 1938—and it still is. The amazing tide of discovery is created by individuals making



Dr. John I. Gallin (l), director of NIAID's Division of Intramural Research and NIAID director Dr. Anthony S. Fauci (r) co-chaired the institute's alumni symposium, which kicked off the annual NIH Research Festival last Sept. 21 and honored Dr. Sheldon M. Wolff, recipient of the 1992 Distinguished Alumnus Award.

waves together."

The festival's first event found a capacity crowd gathered in Masur Auditorium to witness what has become in the last 3 years a traditional highlight of the festival—the NIH Alumni Symposium, which this year honored Dr. Sheldon Wolff, recipient of the 1992 NIH Distinguished Alumni Award.

Wolff's 17 years in intramural NIH began in 1960 when, following a residency at Albert Einstein School of Medicine, he joined NIAID's Laboratory of Clinical Investigation. The symposium was marked by fond and humorous remembrances of the highly regarded scientist, who in 1968 became chief of LCI and NIAID clinical director.

Widely recognized for his research on the origin and development of fever and his investigations on diseases involving immune system malfunction, Wolff has collected numerous acco-

lades and in 1989 shared the Duke University Award for Excellence in Immunologic Research with protege and close friend Dr. Anthony S. Fauci, NIAID director.

Wolff is physician-in-chief, New England Medical Center, and Endicott professor and chairman of the department of medicine at Tufts University School of Medicine.

The symposium on "Immunology and Infectious Diseases" co-chaired by Dr. Anthony S. Fauci, NIAID director, and Dr. John I. Gallin, director of NIAID's Division of Intramural Research, featured not only Wolff but the following speakers: Dr. Richard M. Krause, FIC; Dr. Charles A. Dinarello, Tufts University; Dr. Baruj Benacerraf, Dana-Farber Cancer Institute; Dr. Mark M. Davis, Stanford University; and Dr. Charles A. Janeway, Jr., Yale University.

New this year to the festival was a poster session held in the Clinical

Center's main corridor and sponsored by the NIH Office of Education for its national clinical residency program. Of the 50 participants chosen from medical institutions around the country, five were selected to receive OE's Research Award for Clinical Trainees.

"I applied because this is a chance to talk to a lot of people in my field," said Dr. I-Cheng Ho, a 2nd-year internal medicine resident at the University of Michigan-Ann Arbor and one of the five awardees. "When my residency program is over, I'll be looking into applying for a rheumatology fellowship here as well."

More than a scientific "show 'n' tell," the research festival also serves as a yearly sounding board for the most recent advances in technology and materials.

"This gathering of scientists with diverse research interests allows us to introduce some of the latest computing tools to those who may be able to use them in basic and clinical research," said Dr. David Rodbard, DCRT director. "The technologies change so rapidly. We want people to know about recent developments as they become available."

DCRT employees participated in various workshops and presented 26 posters, most of which highlighted the division's commitment to supporting research with such services as high-performance (massively parallel) biomedical supercomputing applied to structural biology, computer networking, client-server technologies, and the newly established Scientific Computing Resource Center.

In 1993, Research Festival is scheduled for the week of Sept. 20-24. This year's organizing committee, chaired by Dr. Irwin Kopin, NINDS scientific director, has chosen "Molecular Medicine" as the general theme.



Explaining her research poster is NCI's Dr. Ofelia A. Olivero (l), as NEI's Dr. Patricia Becerra listens. The two Research Festival '92 poster sessions drew some 2,000 participants, said officials.

This year's program will open on Monday, Sept. 20, with NIDDK's Alumni Symposium, followed by five other symposia on Monday, Tuesday, and Wednesday. Forty-five workshops will be conducted on Tuesday and Wednesday.

There will be two equal-length poster sessions at the festival, one on Monday,

Sept. 20 and the other on Tuesday, Sept. 21. On Thursday, Sept. 23, and Friday, Sept. 24, the Technical Sales Association scientific equipment show will be held in the Research Festival tents located in parking lot 10D.

In the next issue of *NIHAA Update* there will be more information about the details of the program and scheduling.



The last two days of the 1992 Research Festival week were reserved for the Technical Sales Association Scientific Equipment Show in the Festival tents. There were over 300 exhibitors. The NIHAA staff: Harriet R. Greenwald (l) and Mary Calley Hartman, retired chief of the Office of Special Events at the Clinical Center, had a table to recruit members and inform attendees about the alumni association.

News From and About NIHAA Members and Foreign Chapters

Dr. Carolyn H. Asbury, who was a science writer at NINCDS until 1980, and then a senior program officer at the Robert Wood Johnson Foundation, has been appointed director of the health and human services program at the Pew Charitable Trusts. This national and international philanthropy has a special commitment to the Philadelphia area. The Trusts also support nonprofit activities in the areas of conservation and the environment, culture, education, public policy, and religion. Asbury has been serving as the program's acting director since August 1992. She joined the Trusts in 1991 as deputy director of health and human services. She has done extensive research on orphan drugs and is the author of *Orphan Drugs: Medical vs. Market Value*.

Dr. Nathaniel I. Berlin, who left NCI in 1975 after serving as the first director of its Division of Cancer Biology and Diagnosis, has returned to work at NCI to work on special projects with Dr. Alan Rabson, his successor as the division director. After leaving NCI, Berlin served as professor and director of the cancer center at Northwestern University, Evanston, Ill., until 1987,

when he moved to Miami to become professor of oncology and deputy director of the University of Miami's Sylvester Comprehensive Cancer Center and professor of oncology. He remains a professor emeritus at Miami. Recently he was elected to the NIHAA board of directors and named chairperson of the science policy forum committee.

Dr. Kenneth Alan Collins, who was at NLM from 1983-86; DRG from 1986-88; and FIC from 1988-92, is now at Los Alamos National Laboratory in New Mexico, where he writes that he "began working on June 22, 1992, returning to my professional area, Library and Information Science. I am the Report Section Leader, one of the components of the Library. I am in charge of the technical report collection and online searching of databases weighted towards the report literature. The collection, numbering in excess of 1,100,000 technical reports (almost 90 percent on microfiche) contains both unclassified and classified reports."

Dr. Peter E. Dans, a research associate at NIAID from 1964 to 1967, and associate professor of medicine at Johns Hopkins School of Medicine, has been named deputy editor of *Annals of Internal Medicine*. He will edit and process manuscripts for the journal. He is an internist with special interests in infectious diseases, health policy, quality assurance and ethics.

Dr. Vincent DeVita, Jr., NCI director from 1981 to 1988, and now at Memorial Sloan-Kettering Cancer Center, NY, has received an award from the Association of Community Cancer Centers at the group's Sept. 27-30 meeting in San Diego. When he was director of NCI, DeVita established

the Community Clinical Oncology Program, which provided a way for community physicians to take part in clinical trials. This program greatly increases accrual to important trials and facilitates continuing education in oncology.

Dr. W. King Engel, who was at NINCDS from 1956 to 1981, is professor of neurology and pathology at the University of Southern California's School of Medicine and founder as well as director of the Neuromuscular Center located at the Good Samaritan Hospital in Los Angeles. **Dr. Valerie Askanas**, his wife, who was at NINCDS, is also at USC as a professor of neurology and pathology. The most recent honors accorded them were their election as vice presidents of the VIII International Congress on Neuromuscular Diseases to be held in Kyoto, Japan, in July 1994. He was invited to give the keynote address on Amyotrophic Lateral Sclerosis and she to organize and chair a symposium on Inclusion-body Myositis.

Dr. Samuel J. Fomon, professor of pediatrics at the University of Iowa College of Medicine, and a member of various NIH committees, recently received the 1992 Bristol-Myers Squibb/Mead Johnson Distinguished Achievement in Nutrition Research Award for making "major contributions to the knowledge and understanding of pediatric nutrition for forty years, providing much of the scientific foundation for current infant nutrition guidelines."

Dr. Sara Fuchs, who was a postdoctoral fellow with Dr. Christian Anfinsen from 1965-68, and a Fogarty scholar-in-residence in 1986-87 and 1989, is professor of neuroimmunology in the department of chemical immunology at



the Weizmann Institute of Science in Rehovot, Israel. This past year she has been working in the Diabetes Branch, NIDDK, and the Experimental Therapeutic Branch, NINDS, and returned to Israel in February 1993. She and Dr. Michael Sela, who has been named president, are involved in establishing a NIHAA chapter in Israel. In connection with the November 1992 symposium in honor of Dr. Christian B. Anfinsen, funds were raised that will be used to honor him with a lectureship at the Weizmann Institute. The NIHAA Israeli chapter will help sponsor the first lecture this November.

Dr. Thomas E. Hamm, Jr., who was at NCI from 1978 to 1980 as an expert consultant in the bioassay program, has been appointed director of Laboratory Animal Resources at the North Carolina State University College of Veterinary Medicine. He will be in charge of the care of all lab animals used for teaching and research throughout the university. Prior to this appointment on Oct. 1, 1992, he was at Stanford University's Medical School where he was professor and department head of comparative medicine and director of the animal medicine lab.

Dr. Annabel G. Liebelt, who was at NCI's Laboratory of Pathology from 1949 to 1952, and then returned to NCI in 1982 to work again with Dr. Harold Stewart in the Registry of Experimental Cancers, officially retired in 1991, but reports that she is a special volunteer working half-time entering new pathological material into the Registry and finishing up projects. In 1991, she was elected to the Board of Governors of the Alumni Association of Western Maryland College for a 4-year term.

Ben Z. Locke, who was chief,

Epidemiology and Psychopathology Research Branch, NIMH, was honored Dec. 2, 1992, upon his retirement from federal service with a symposium on "Psychiatric Epidemiology: Current Issues and Future Directions." He had started work at NIMH in January 1956 and commented that, before he left, NIMH had returned again to NIH on Oct. 1, 1992, when the NIH/ADAMHA merger took effect.

Jean Moore has joined the Emeritus Scientist, Mathematicians and Engineers Program (ESME), a volunteer program that brings retired scientists, mathematicians and engineers into the classroom to introduce school children to career opportunities in scientific and technical fields. Previously she had worked with the NIH Office of Education and the NIHAA to find alumni to join this program. If you are interested

in learning more about or joining ESME please call her at (202) 296-0254.

Dr. John Parascandola, former chief, History of Medicine Division, NLM, from 1983 to 1992, has been selected for the position of PHS historian. He is the first formal PHS historian and will be working in the office of the assistant secretary for health, HHS. Parascandola will direct the PHS history activity in connection with the 200th birthday celebration of the PHS in 1998, and will be responsible for promoting awareness of the importance of historical activities throughout PHS, supporting scholarly research on the history of PHS, coordinating PHS historical activities with the National Museum of Health and Medicine, and providing historical background on contemporary issues.

(See Members p. 10)



Talking after the symposium to honor Dr. Christian B. Anfinsen, which was held last Nov. 2, the 20th anniversary of the notification that he won the Nobel Prize for Chemistry, are (from l) Dr. Phillip Gorden, NIDDK director; Dr. Christian B. Anfinsen, professor of biology in the department of biology at Johns Hopkins University; and Dr. Joseph E. Rall, former director of intramural research at both NIDDK and NIH.

Members (continued from p. 9)

Dr. Paul Parkman, who was on campus from 1963 until his retirement in 1990 as director of the Food and Drug Administration's Center for Biologics Evaluation and Research, received the 1992 Distinguished Alumnus Award from SUNY Health Science Center on Oct. 9, 1992, in



Syracuse, NY. Parkman (shown with his wife at the ceremony) was honored for his pioneering work in the discovery and isolation of the rubella virus, and the testing of the first vaccine in 1965. It was put into common use in 1969 and virtually eliminated what was once an epidemic disease. He graduated from the College of Medicine at Syracuse, then called Upstate Medical Center, in 1957.

Dr. Harvey L. P. Resnik, who was at the Fogarty International Center in the 1960's and also at the National Institute of Mental Health, is clinical professor of psychiatry at George Washington University School of Medicine. He wants to start a chapter of NIHAA in the BENELUX countries. If you know of any NIH alumni in that area or are interested, please contact him c/o Bio Brite Europa, Ninoofses-

teeweg 244, B1700, Dilbeek, Belgium. His fax is 32-2-569-6952.

Richard L. Seggel, who was executive officer and associate director for administration, NIH, 1958-71, and deputy assistant secretary health/policy implementation in the Department (HEW), 1971-73, is a fellow of the National Academy of Public Administration and a member of the NIHAA board of directors. He has written an article on "The Organizational Roles of the Public Health Service Commissioned Corps and Surgeon General: A Monograph on their Recent History." In a future issue of *Update* we hope to have excerpts from it.

Dr. John F. Sherman, formerly deputy director of NIH, and now retired from the Association of American Medical Colleges, delivered the inaugural Arnold Lazarow Lecture in Medical Information Sciences at the University of Minnesota on Oct. 16,

1992. Established by Mrs. Jane Lazarow Stetten, the Lectureship honors Lazarow, the long-time chairman of the medical school's department of anatomy, noted for his research on the islet cells of the pancreas and for his pioneering efforts in development and applying new techniques of information management to biomedical research. He was also a consultant to the then NIAMD as well as a grant-supported investigator for many years.

Dr. Ellen K. Silbergeld, who was in NINCDS from 1975-81; and NICHD from 1982-84 is now professor at the University of Maryland Medical School and chairman of Maryland's advisory council on lead poisoning.

Dr. Jay S. Skyler, a staff associate at NHLBI in the Hypertension Endocrine Branch, Laboratory of Biochemical Pharmacology from 1973 to 1975, is the outgoing president of the American Diabetes Association (ADA). He



On Sept. 18, 1992, the occasion of his 80th birthday, Dr. Julius Axelrod, was honored with a symposium featuring his former postdoctoral fellows. Standing with Axelrod (c) are (from l) Dr. Lance Liotta, NIH deputy director for intramural research; Dr. Irwin J. Kopin, NINDS scientific director; Dr. Frederick Goodwin, now NIMH director; and Dr. Steven Paul, director of NIMH's intramural research program. At the symposium, Liotta presented to Axelrod the NIH director's award that cited him for his "lifetime of extraordinary achievements in the neurosciences and legendary talents as a mentor to young scientists."

received the ADA's Banting Medal for Service for his distinguished service to the diabetic community. He is a professor of medicine, pediatrics and psychology at the University of Miami and is co-director of the National Heart, Lung and Blood Institute's Medical Research Center at the university.

Dr. Panu Vilkii, chairman of the "Sunomen NIH Alumni Association" chapter, reports from Finland that the group met on Jan. 7, 1993, in connection with a meeting on "Medicine 1993" in Helsinki, Finland.

Ralph O. Williams, who was with NHLBI as a branch chief in planning from 1976 to 1979, is the founder and chairman of R.O.W. Sciences, Inc. He was recently honored as the National Minority Small Business Person of 1992 at a White House ceremony sponsored by the Small Business Administration. R.O.W. Sciences is a 400-person professional services firm headquartered in Rockville, Md. The firm conducts basic pre-clinical research at its 30,000-square-foot Gaithersburg laboratory and does general consulting and telecommunications services at its Rockville headquarters.

Dr. Marvin Zelen, who was with the Biometry Branch at NCI from 1963 until 1967, has written that "Two years ago I stepped down as chair of the department of biostatistics at the Harvard School of Public Health after serving for ten years. I felt it important to devote more time to research and teaching. In addition to my academic duties, I continue to be the director of the Division of Biostatistics and Epidemiology at the Dana-Farber Cancer Institute. Last year I was on sabbatical leave and devoted time to topics which were placed on the 'back-burner' for many years. I wrote a paper on ethics in clinical trials as well as other papers on a number of esoteric topics in biostatistical science."

Attention

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update*.

Name

Home phone

Home address

News, include dates/position at NIH and photo if possible

Suggestions for newsletter

Suggestions for NIHAA

Science Research Updates

NICHD Grantees Identify Protein as Tumor Suppressor

Researchers funded by NICHD have determined that a reproductive hormone known as inhibin is directly involved in preventing the formation of certain reproductive tract tumors. In the study, published in the Nov. 26, 1992 issue of *Nature*, the researchers reported that mice deprived of the gene coding for a portion of inhibin quickly develop reproductive tumors of the gonadal stromal cell type.

The research team was led by Martin M. Matzuk of Baylor College of Medicine. Other members of the research team were Milton J. Finegold and Allan Bradley, also of Baylor; and Jyan-Gwo Su and Aaron J.W. Hsueh, of Stanford University.

The study identifies inhibin as the first protein discovered that is produced outside the cell it acts upon to suppress the development of tumors. Although other studies have described substances that suppress tumor formation, all of these substances were produced within the cells they act upon.

The findings may some day lead to important insights regarding the functioning of the reproductive tract as well as the biology of tumor formation.

To produce the inhibin-deficient mice, the researchers used a recently developed technique known as gene targeting. The technique is built upon earlier research showing that a cell will sometimes replace one of its own genes with a foreign gene if the replacement gene bears a close structural resemblance to the original.

The researchers began by exposing

mouse embryonal cells to nonfunctioning copies of the alpha inhibin gene, one of two genes needed for the manufacture of inhibin. Mouse cells that had taken in the nonfunctioning gene were then injected into mouse embryos. The resultant mice, known as chimeras, were composed of two types of cells, one lacking the alpha inhibin gene, and one capable of normal production of the hormone.

Through conventional breeding techniques, the researchers were eventually able to produce mice lacking a functional copy of the alpha inhibin gene. Although the mice developed normally at first, virtually all (47 males and 23 out of 24 females) showed evidence of gonadal stromal cell tumors by 5 weeks of age.

"These observations demonstrate that inhibin is a critical negative regulator of gonadal stromal cell proliferation," the investigators wrote. "Inhibin is thus the first secreted protein which has been identified to have tumor suppressor activities."

Dental Researchers Report Novel Arthritis Treatment

Scientists have successfully treated arthritic rats by blocking the action of a molecule that regulates the body's response to infection or tissue injury. The molecule is called transforming growth factor-beta (TGF- β). When an antibody that inhibits TGF- β (anti-TGF- β) was injected directly into the animals' joints, arthritis symptoms were greatly reduced.

This finding could have applications for treating arthritis, periodontal diseases, and other chronic inflammatory disorders, said Dr. Sharon Wahl of NIDR, who led the study. She cautioned, however, that the use of anti-

bodies for therapy has inherent problems, but added that these studies serve as a prototype for local administration of other TGF- β antagonists currently under development.

TGF- β is a multifunctional molecule that plays a pivotal role in switching the immune system on and off. In the early stages of an infection, TGF- β is secreted by white blood cells and acts as a signal that attracts other white cells and stimulates them to fight the infection. As the infection subsides, TGF- β reverses its role and suppresses the activity and recruitment of white cells.

However, in chronic disease situations such as arthritis, the normal cycle of events does not occur and TGF- β continues to attract white cells. It is the excessive accumulation of white cells that produces red, swollen joints and eventually leads to tissue and bone destruction.

Scientists examined rats with experimentally induced arthritis to determine the therapeutic effect of anti-TGF- β , which specifically binds to TGF- β and blocks its activity. Rats were first injected with a bacterial cell preparation that produces symptoms that mimic human rheumatoid arthritis. Without additional treatment, the rats experience an acute form of arthritis that appears within 24 hours and is characterized by swelling of the joints and feet and redness of the overlying skin.

The acute phase subsides within several days, and after a period of 2 to 3 weeks, the disease enters the chronic stage. This phase is identified by joint deformity brought on by the gradual destruction of cartilage and bone and replacement with connective tissue containing large numbers of white blood cells.

Rats receiving a single injection of anti-TGF- β into a hind ankle just prior to injection with the bacterial cell

preparation experienced a significant reduction in both acute and chronic forms of arthritis. Acute symptoms were reduced by over 75 percent and chronic symptoms by over 60 percent. Moreover, when anti-TGF- β was administered only after the chronic disease phase had begun, arthritis symptoms were still reduced by almost 70 percent.

According to Wahl and her associates, anti-TGF- β works by interrupting the cycle of white cell migration into the joints. The researchers feel this antibody and other TGF- β inhibitors may provide a mechanism for treating arthritis and other chronic inflammatory diseases.

Two Research Teams Show Genetic Causes of Skin Disease

Two independent research teams supported by NIAMS have found genetic defects responsible for the often debilitating blistering and scaling of the skin that occurs in people suffering from epidermolytic hyperkeratosis (EHK). EHK is one of the ichthyoses, a group of hereditary scaling, drying skin disorders that affect more than 1 million Americans. The work of both teams, in which specific defects or mutations in keratin proteins (structural proteins found in the outer layer of the skin) were shown to cause EHK, appeared in the Sept. 4 issue of *Cell*. The two research teams were led by Dr. Elaine Fuchs of the University of Chicago and Dr. Peter M. Steinert of the Laboratory of Skin Biology, NIAMS.

These findings are the first step toward being able to develop molecular probes for the disease, and should enable prenatal testing and, ultimately, the development of treatments for the

disease. The results may also help in understanding the causes of other diseases, including hereditary scaling and blistering skin diseases.

EHK causes thickening, scaling, and blistering of the stratum corneum—the outermost layer of cells in the epidermis. This chronic disease is often severe and disabling, especially in children. In newborns with EHK, even the pressure on the skin caused by a diaper can cause blistering, and these babies' blistered, fragile skin makes them highly susceptible to infection, which can be fatal.

Microscopic examination of skin samples from EHK patients reveals a characteristic pattern that includes the disintegration of skin cells and abnormal clumping of keratin filaments. Normally, keratins form long, rope-like strands called intermediate filaments (IFs). These strands form part of the cytoskeleton—a web-like network of molecules that reinforces the cell's structure. The researchers found defects in keratin proteins that affect

their assembly into IFs and could lead to structural defects in the cells that might account for their fragility in EHK.

Steinert's group identified a specific mutation in the keratin 1 gene that causes the disease. This mutation causes an amino acid substitution in the keratin 1 protein, which has the potential to disrupt significantly the three-dimensional structure of the protein, and occurs in a region that is important for the assembly of keratin filaments. Fuchs' group found a defect in another keratin—keratin 10—in several EHK patients. Keratin 10 is found paired with keratin 1 in IFs in the stratum corneum. Like the keratin 1 mutation, the mutation in the keratin 10 gene causes a single amino acid substitution in the protein in a region that is important for filament assembly.

Steinert's group devised a way to show that a piece of the defective keratin 1 protein could interfere with the normal behavior of keratin filaments in

(See *Research Updates* p. 14)



Dr. Peter Steinert (far l) and members of the Laboratory of Skin Biology, NIAMS: (from l) In-Gyu Kim, Song-Qing Gan, Bernhard Korge, and Kozo Yoneda.

Research Updates (continued from p. 13)

the test tube. Their data provides strong evidence that the defect in keratin 1 will also affect the way this keratin functions in human skin cells, leading to a defective cytoskeleton and thus making the cells very fragile.

The keratin 10 defect identified by Fuchs' group occurs in a part of the protein that corresponds exactly to the place in a related protein, keratin 14, which is mutated in another blistering skin disease, epidermolysis bullosa simplex. Fuchs and colleagues showed that this keratin 14 mutation can disrupt the normal keratin filament network in cultured human epidermal cells. Taken together with data from Fuchs' previous experiments with mice transgenic for a more radically mutated keratin 10 gene, these results suggest that keratin 10 mutations, like keratin 1 mutations, can cause EHK.

Future studies of other patients with EHK will determine whether they have the same defects in keratin 1 and keratin 10 as have been found by these two research teams. By studying the genet-



Dr. Elaine Fuchs of the University of Chicago contributed to the epidermolytic hyperkeratosis study.

ic material from a large number of EHK patients, both research groups hope to end up with a "catalog" of the specific mutations that cause EHK.

"A deeper understanding of the location of mutations in EHK genes should help us not only in developing improved methods for diagnosis, but also in exploring whether it may be possible to treat this disease by gene therapy," explains Fuchs. Steinert agrees, "Once we have a catalog of mutations, we can design treatments that are directed toward correcting the molecular defects rather than treating the symptoms."

Blood Type Matching Improves Cornea Transplant Success

Researchers report that donor-recipient tissue typing had no significant long-term effect on the success of corneal transplantation in a nationwide clinical study of more than 400 patients at high risk for rejection. The results of this NEI-supported research were published Oct. 14 in the *Archives of Ophthalmology*.

The Collaborative Corneal Transplantation Studies (CCTS) suggested that matching patient and donor blood types (ABO compatibility), a test that is not currently standard practice in corneal transplantation, might be effective in improving patient outcome. CCTS investigators also believe that treating patients with high-dose topical steroid therapy for several months after surgery may have improved transplant survival in this study.

These findings, based on 3 years of extensive patient followup, indicate that these two inexpensive strategies may potentially be more effective in improving high-risk corneal transplantation than the more expensive donor-

recipient tissue typing.

More than 40,000 corneal transplant operations are performed annually in the United States. But about one in 10 patients receiving a corneal transplant is at high risk of rejecting the donor tissue, or graft, because: (1) they have previously rejected a corneal transplant, or (2) new blood vessels have grown into their damaged cornea, introducing immune cells into this normally avascular region of the eye that may later recognize the graft as foreign and attack it.

If donor-recipient tissue were to become standard practice in corneal transplantation, it would greatly increase the cost and waiting period for this operation. The process of matching antigens is labor intensive and would add at least \$1,000 to the cost of the procedure, now about \$5,000. Moreover, since there is already a national shortage of donor corneas, high-risk patients would likely have to wait even longer for a suitably matched donor cornea.

The researchers also noted that CCTS patients who matched the donor's blood type had a better outcome than unmatched patients. This finding was particularly interesting because ABO compatibility has been shown in several other organ transplantation studies to enhance graft survival, but it had never been reported in corneal transplantation research.

"If future studies prove ABO compatibility has an effect on corneal transplant survival," said Dr. Carl Kupfer, NEI director, "this easily administered and inexpensive test would improve transplant survival without substantially increasing the cost of the operation."

This material was compiled from various institute information articles.

World Congress on TB

War on Infectious Diseases Mustn't Abate, Fauci Says

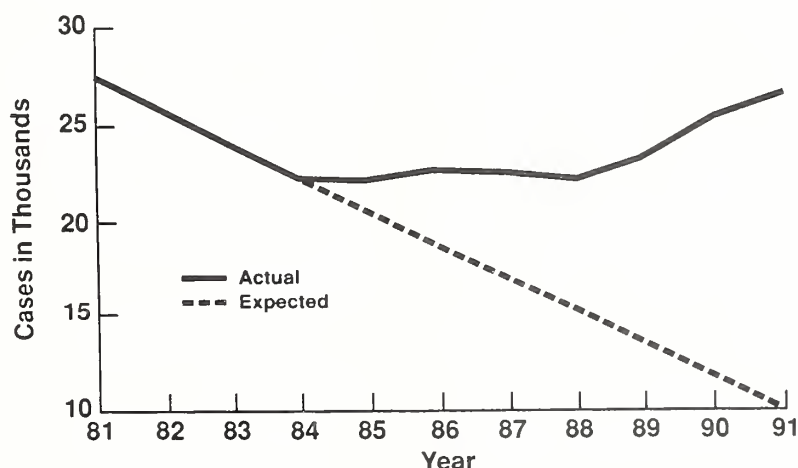
By Greg Folkers

The recent resurgence of tuberculosis (TB) underscores the importance of sustaining research on infectious diseases, even those perceived to be on the wane. NIAID director Dr. Anthony S. Fauci told an international audience of more than 900 scientists, physicians and health care workers at the recent World Congress on Tuberculosis.

"The lesson of the recent rise in TB is that you cannot let any field lie unnurtured," he said. "We are vulnerable to both new and reemerging epidemics and need an ongoing research commitment to TB as well as to other infectious diseases, at both the basic and applied levels. Otherwise, history will repeat itself."

From the 1950's through the 1970's, progress against tuberculosis in the United States was so good—an average 5 to 6 percent decline in cases each year—that the public's attention, as well as government and private funding, was diverted elsewhere.

Actual Versus Expected Tuberculosis Cases in United States, 1981-1991



Dr. Anthony S. Fauci

Since then, the disease has returned with a vengeance, fueled by the HIV epidemic, immigration from TB-endemic areas, and poor living conditions associated with homelessness and poverty. Between 1985 and 1991, U.S. cases rose 18 percent to 26,283. Worldwide, TB kills 3 million persons every year, more than any other infectious disease.

Particularly alarming is the spread of strains of the organism resistant to treatment with two or more drugs. The death rate for multi-drug-resistant TB

(MDR-TB) is 40 to 60 percent even with treatment—the same as for TB patients who receive no treatment. For persons coinfectd with HIV and MDR-TB, the death rate may be as high as 80 percent. In 1990-1991, the Centers for Disease Control and Prevention received reports of 13 outbreaks of MDR-TB, during which the disease sometimes spread to hospital patients, health care workers, prisoners, and prison guards.

"It is our obligation in the biomedical research community to bring TB research into the era of advanced molecular biology, biotechnology and pathogenesis," said Fauci.

Toward this end, he presented NIH's comprehensive TB research agenda to the World Congress and outlined plans for increased support for:

- basic research on the biology of the TB organism
- the development of new tools to diagnose TB
- the development of new drugs or new ways to deliver standard drugs
- clinical trials of anti-TB therapies
- the development of new vaccines to prevent TB
- training to increase the number of TB researchers
- new ways to educate health care workers and the public about TB prevention.

Currently, NIAID supports more than 50 research projects related to TB; another six NIAID projects are funded through the National Vaccine Program.

NIAID will fund an estimated \$20.6 million in TB research in FY 1993, nearly 4 times more than originally planned. This figure represents more than fifty percent of the entire estimated NIH budget of \$35.9 million for TB research.

NIHAA Essay

From Two To Five

By Dr. Henryk Eisenberg

In January 1993 Bldg. 2 personnel on the NIH campus moved into the renovated Bldg. 5 in the musical chairs game devised for the physical renewal of the antiquated NIH buildings. My own formal association with Bldg. 2 goes back to 1965, but I had been in its "proximity" much earlier.

In the summer of 1952, while a post-doc with Ray Fuoss at Yale, I came to visit Washington and made an appointment with Terrell Hill, then at the Naval Medical Research Institute on Rockville Pike in Bethesda. Terrell was well known to us for his work on statistical mechanics of polyelectrolytes, which we were studying in Rehovot as models of biological macromolecules. Note that this was before Watson and Crick.

I took the trolley to Chevy Chase Circle and noticed that there were separate seatings for Blacks and for Whites. From Chevy Chase Circle I boarded the bus to Rockville Pike for my meeting with Terrell. I did not know at that time that NIH existed just across the Pike. Of course, there was no Bldg. 10 or any of the other "large" buildings on campus.

Incidentally, Terrell left the Navy to set up strong physical biology departments in Eugene and in Santa Cruz, before coming back to Bethesda, this time to the Laboratory of Molecular Biology (LMB) in Bldg. 2, for an extended fruitful stay. By public acclaim he also became the tennis champion of Bldg. 2, as duly recorded by Bill Eaton. Terrell is now retired in his favored Santa Cruz on the Pacific Ocean.

My first visit to NIH, Bldg. 10 to be exact, was in the summer of 1959 when I was invited by Chris Anfinsen to give a talk on my work. Michael Sela had come to work with Chris in 1956 and I



Dr. Eisenberg is a member of the structural biology department, the Weizmann Institute of Science, Rehovot, Israel. He was a Fogarty scholar-in-residence in 1973 and recently spent time here at NIH during move from Bldg. 2 to Bldg. 5.

had met Chris and the family on their visit to the Weizmann Institute one year later. As I was planning to spend 1958 and 1959 at the Mellon Institute, in Pittsburgh, Chris invited me to visit NIH during my stay. With my wife Nutzi and the kids we drove our old Chevy to Bethesda, leaving the Pennsylvania Turnpike for smaller country roads, until reaching the narrow two-lane Old Georgetown Road, our destination.

Getting to know NIH even in that short visit was an exciting experience. Lasting friendships were made with Herb Sober, Bill Harrington, Bill Carroll. Bill Carroll came with his family to Rehovot for a year to work with me on devising ways and means to produce and study uniquely sized and charged polystyrenesulfonic acids. This exemplified the strong connections between the Weizmann Institute and NIH.

Back in Pittsburgh we were fortunate to meet Gary Felsenfeld, who had left NIH and was now at Pittsburgh University. Our strong relationship

started in discussions ranging over nucleic acids, polynucleotides and, later chromatin. Gary, however, returned to NIH and in 1965 I came for a year-long visit to NIH to work in Bldg. 4 with Bill Carroll and in Bldg. 2 with Gary.

Gary had told me to introduce myself to the Laboratory of Molecular Biology (LMB) lab chief Gordon Tomkins. Expecting a formal engagement with a high-ranking official I dressed carefully with jacket and tie. Imagine my surprise when Gordie, wearing an open shirt, turned out to be one of the most attractive intellectual and social personalities I had met in a lifetime. We became close friends, enjoyed his talk, ideas, music, art and jazz that he was playing himself. Though this report is essentially a personal story relating to Bldg. 2, certainly not an official history, I cannot avoid mentioning the close relationships woven inside and outside the NIH campus.

I found the LMB and Bldg. 2 to be a most unique place of research and human interactions. Much of it I

ascribe to the personality of Gordie whom one could not pass in the corridor or near the coffee pot without a fruitful scientific exchange, or a humorous but profound comment on a current political, social or cultural event. Scientists most often stand at their bench or sit at their desk and talk little to other scientists in close-by laboratories or offices, who are doing the same. Here, on the other hand, communication and human relationship became a major contributing factor to the scientific work. Further exchanges were conducted in a continuous stream of outstanding lectures, group meetings and journal clubs. I am not sure whether Gordie was responsible for creating this atmosphere or whether it already started in a period with which I was not familiar. After all, in an earlier period Arthur Kornberg roamed in and around Bldg. 2 and left a lasting impression.

It has certainly maintained itself strongly to the present day after Gordie left in 1969, when the outstanding scientists and section chiefs at the time, Gary Felsenfeld, David Davies, Marty Gellert, Bob Martin and Todd Miles decided they would rotate in the position of lab chief, vacated by the departure of Gordie, a procedure maintained to the present day. Much of the smoothness and success with which LMB was run was due to Ed Rall, who was director of NIDDK's intramural research, who carried the whole administrative burden and provided strong encouragement for new and ongoing scientific programs. To hire a new worker or to order a new piece of expensive machinery, all that was necessary at the time for the LMB group leaders was to pick up the phone and talk to Ed who would give each justifiable request due consideration and quick action. The scientist could there-

A photo taken of Bldg. 2 in the 1950's.



fore devote their full attention to their work and many outstanding contributions have emerged from Bldg. 2.

I was happy during my stay in 1965 to complete a study on Poly A configuration with Gary in which I used the Model E analytical ultracentrifuge and the SOFICA light scattering machine which I set up in the attic. Both these instruments have now been replaced by ultramodern Brookhaven laser light scattering and Beckman Optima XLA analytical ultracentrifuge instruments.

One day, still in 1965, Gordie got hold of me in the corridor and said could I spend one afternoon to solve the molar mass and subunit structure of bovine liver glutamate dehydrogenase, a highly controversial topic at that time. It took more than an afternoon but we established the then outrageous hexamer structure of the enzyme monomer, contradicting Monod's dogma: the monomer self-associates to form long rods. We have continued for a number of years in Rehovot to work on this interesting system and it eventually led us to the study of dehydrogenases from

extreme halophilic bacteria from the Dead Sea, which occupy us to the present day. I have been coming back continuously to Bldg. 2 since these early days and until today, collaborating with Gary on chromatin and beta-globin gene structure. Being here continues to be a source of non-ending delight.

Outstanding basic scientific work of world renown emerged from the LMB in Bldg. 2 in X-ray crystallography of proteins and nucleic acids, gene structure and function and many related topics. Many well-known scientists have spent longer or shorter periods in the lab. When I was here in 1965 Bruce Ames was part of the crew, and I mention him in particular because, to the end he still haunted the upper floors. On the benches and in the cold rooms one still ran across desiccators, flasks, stirrers, etc. clearly marked with his name. Did the younger generations notice this and are they aware that this is the guy who often appears in the pages of *Science*?

(See Eisenberg p. 18)

Eisenberg (continued from p. 17)

While LMB occupied floors 2 and 3 and the attic, floor 1 and the lower depths of the basement and the sub-basement in Bldg. 2 were occupied by the outstanding Laboratory of Chemical Physics (LCP), led for many years by Ted Becker. I have in particular enjoyed close relations and discussions with Karl Sollner, the well-known colloid chemist, and Elliot Charney, on DNA structure and folding. Bill Eaton was not there yet in 1965, he came later, belonging to a younger generation assembled by him in the laboratory, doing outstanding research in dynamic laser spectroscopy of haemoglobin, multidimensional NMR of proteins and modern theory; Jim Hofrichter, Ad Bax, Angela Gronenborn, Marius Clore, Attila Szabo and the somewhat older Bob Zwanzig whom I had met at Yale, are names known to all. The atmosphere in LCP is as stimulating as on the upper floors. I attend their seminars and journal clubs, play tennis with some of them—the intellectual game which brings scientists together for what passes among us as exercise, both physical and of a deeper nature—and I am also grateful for being invited to their Christmas party when I am in town. Relations between the two laboratories are excellent and it is a pleasure to enjoy their complementarity in outlook and scientific problematics. They moved together to Bldg. 5 and should continue on the path of progress.



Dr. Gary Felsenfeld, acting chief of the Laboratory of Molecular Biology, NIDDK, packing for the move from Bldg. 2 to Bldg. 5.

Moving into another more modern and comfortable building, better designed and executed, should not affect the subtle interactions which, in my belief, are an essential ingredient in the creation of great science. Doors to offices and labs should remain open in a real and in a figurative sense, even if the design strives towards increasing isolation. The human values of Bldg. 2 should not be lost in the process of cold modernization.

Some months ago I suggested to my friends that the appellation Bldg. 2 should be maintained and moved into the new surroundings. This has apparently not been approved and the move is into Bldg. 5. So, in conclusion, *take five*, but *remember two*, and proceed on the path which will continue to produce great science, while maintaining the humanity which makes it all worthwhile.

Liotta (continued from p. 1)

freedom. The unique aspect of NIH is that a scientist can wake up in the morning with an idea and have the resources to go into the lab and start that experiment before breakfast.

"NIH is a haven for imaginative research," he continues. "Here, a talented scientist can give free rein to his or her creativity...even if that means pursuing what others might consider scientific longshots. It is this NIH tradition that encourages our scientists to go wherever their data lead them, to trust their instincts."

NCI director Dr. Samuel Broder, who headed the search committee for the position, urged Liotta to apply. But until he actually had a job interview with NIH director Dr. Bernadine Healy, Liotta didn't think he was a serious candidate. He went armed with a position paper he had just drafted that included his evaluation of the strengths and needs of the IRP.

Liotta was heartened by the interview and impressed by Healy's dual commitment to innovation in the basic and clinical research programs, to hastening laboratory discoveries into the clinic, and to recruitment of top scientists for the IRP.

When Liotta accepted the job, Healy insisted that Liotta keep his lab. "I think that helps me do my administrative job in Building 1 better—I can understand both sides, and sympathize with the needs of the scientists."

One of the themes in Liotta's plans for the IRP is fostering "an electricity and cross-fertilization that comes from the diverse expertise and proximity of scientists here. We need to put procedures in place so that the spirit of the annual Research Festival will characterize NIH year round."

To reach this goal, Liotta is taking several steps. Based on a report by

NICHD's Dr. Richard Klausner, Liotta hopes to create "scientific senates" in specific disciplines that would form the nuclei for inter-institute exchange of ideas. In February he launched a newsletter, called "The NIH Catalyst" to foster collaborations and bridge the information gap between bench scientists, scientific directors, and the Office of the Director.

Liotta will also start a "Breakthroughs" seminar series. "We will invite intramural people from certain disciplines to learn about the hottest work of new, young scientists. It will boost morale and stimulate collaboration," Liotta says.

Other morale-boosters include plans to enhance both pay and the recruitment and retention of outstanding scientists at NIH. But here Liotta is finding he must work his way around bureaucratic roadblocks. One victory came when the rules governing consulting and outside activities were changed.

"Scientists can now make up to \$25,000 in consulting fees per company, with no limit on the number of companies they can advise, and they can consult up to a ceiling of 500 hours per year," Liotta reports. "We have also broadened eligibility for outside medical practice, especially to accommodate colleagues from our newly merged ADAMHA components." NIH scientific directors have also approved a formalized tenure track for NIH scientists which "should help reduce ambiguity with regard to career goals" for researchers, Liotta hopes.

In an effort to enhance intramural



Dr. Lance Liotta

support for women, one of Liotta's first actions was to appoint NIDR's Dr. Hynda Kleinman to chair a new intramural women scientists' task force. Kleinman's committee has completed a report that recommends measures to boost the visibility of women scientists.

Liotta says his goal is to make NIH "the leading federal agency to have equal pay for all employees based on merit and total equality." A survey by Kleinman and Dr. Michael Fordis, director of the Office of Education, "has made clear that women are under-represented at nearly all levels," Liotta says. "But this year, we have seen the highest rate for women nominated and approved for tenure positions, and the highest number of women in the tenure-eligible pool. I really feel good about that." Liotta notes that in 1992, "the percentage of women granted tenure has nearly doubled to more than 45 percent. Previously, of those put forward for tenure, only one out of five were women."

In response to scientists' concerns about the physical environment on campus, Liotta has been working with the Office of Research Services on

NIH's master plan, a new Clinical Center, and the new Conte and Natcher buildings. This year, ORS is promising a multi-level parking garage and more satellite parking. Liotta would also like to improve day care arrangements for employees, upgrade computerization, and institute better training on safe handling of research animals. "Our general goal is to improve the quality of life around here."

Liotta is also taking steps to improve procedures for technology transfer—computerizing invention reports, speeding up licensing and patenting procedures, and educating scientists "on what a patent is, and what is patentable." To free scientists from the burden of responding to hundreds of requests for reagents, genes, cell lines and probes developed at NIH, the institute's scientific directors have approved a new arrangement to give distribution tasks to the American Type Culture Collection in Rockville, Md. "This will free up scientists to do what they do best—science," Liotta states.

Liotta also wants to raise the profile of the Intramural Research Program. "We need to demonstrate more aggressively the fantastic return you can get on investment in intramural NIH research," Liotta says. To this end he is preparing testimony for legislative budget hearings that will highlight intramural achievements.

Liotta is even contemplating a new, more vibrant name for the IRP. "Dr. Healy wants the IRP to be known as the flagship of the NIH system. We want to have NIH be a household word."

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Healy (continued from p. 1)

"The NIH claims a piece of my soul, and will always have a place in my heart," said the 48-year-old cardiologist, who has been director for 22 months. "I am proud to have been at her helm."

The director had informed her top staff in a meeting earlier that morning of her plans to step down.

"It was a surprise announcement at this morning's staff meeting," said John Mahoney, NIH associate director for administration, adding, "We'll be very, very depressed."

Healy called the decision to remove her President Clinton's, whose wishes, she assured, were "in the best interests of NIH." She told reporters she never met with the president, but had discussed her NIH job with Shalala on many occasions.

Pressed to reveal the reasons for her leaving, Healy responded, "I don't really know. I'd tell you if I truly knew, but it doesn't really matter. The decision has been made and NIH must go forward."

Healy said she plans to return to the Cleveland Clinic Foundation, which she left to take the NIH directorship in April 1991, to complete some writing and speaking projects.

Taking questions from reporters, Healy said her response to being mentioned as a possible running mate of presidential candidate H. Ross Perot last summer, "was to fall out of bed." Asked whether rumors that Cleveland Browns football team owner Art Modell had offered to back her political career in her home state of Ohio, Healy responded, "This is a rumor that has not originated in my head. NIH is in my head today."

"Is a political race of any kind in your head?" queried a correspondent. "Today, not many things sound particu-



Healy, Dr. John W. Diggs, NIH deputy director for extramural research, and Lily O. Engstrom, assistant director of NIH's Office of Extramural Research. Diggs announced on Mar. 3 that he will be leaving NIH in June to become vice president for biomedical research at the Association of American Medical Colleges.

larly appealing," answered the director.

Healy said she has never pre-scripted the way her life would turn out, admitting that she follows baseball great Yogi Berra's philosophy of living: "When you come to a fork in the road, take it."

Fielding more questions, Healy said she supports the NIH reauthorization bill now before Congress, and added that her support for the legislation had nothing to do with her resignation. Asked whether her celebrated contretemps with Rep. John Dingell (D-Mich.), or her position on research with fetal tissue, or her views on abortion led to her dismissal, Healy said it has never been her policy to "make decisions based on how they affect me personally. I made the decisions I believed were right at the time. The stand I took with Mr. Dingell I'd keep today."

Healy called NIH "the Beirut of both the abortion and fetal tissue issues," meaning that the agency has unfortunately been the turf on which larger

societal issues have been fought.

"I made my views (on these issues) perfectly clear to President Bush (before accepting the directorship), and I agreed to honor his decision regarding the moratorium on fetal tissue. They never asked me to change my mind on this issue. They never said I couldn't debate the issue behind closed doors, and I did, as any good public official does."

The director admitted that the abortion question has dogged NIH, but asserted, "NIH is not the proper place to debate this issue. We're a science agency, not a public policy institute."

Continuing to take questions, Healy said she was never asked by the Clinton transition team to remain at NIH permanently, only for the interim.

"Maybe I shouldn't have asked, 'How long?'," she said sheepishly, "but I did."

Shalala supports fully Healy's current program emphases—the NIH strategic plan, an enhanced Human Genome Project, and reorganization of

the OD staff, among others, reported Healy.

"The next 4 months are of critical importance to NIH," she continued, "and I am really pleased and delighted to be at the helm. Within 2 weeks, we will announce the 16 vanguard centers in our Women's Health Initiative. The strategic plan will be unveiled in the next 4 to 6 weeks, and I know you'll love it. Implementation of parts of the plan will be going on by June. In fact, the National Eye Institute has already adopted part of the plan.

"I am preparing fully for the upcoming budget hearings before Congress, and plan to see that put to bed before I leave."

Asked what her legacy at NIH will be, she responded, "That is for time and you to tell."

Commented Mahoney at a Stone House coffee and reception following the announcement, at which Healy's staff and ICD directors offered their appreciation and condolences, "We echo her words. She has a full agenda over the next 4 months. We look forward to working as hard and as well as we can to accomplish these goals."

Regarding the search for a new NIH director, Shalala said, "I will be conferring with scientific leaders and the White House to establish a process for the selection of Dr. Healy's successor. We will assure in our selection of a new director that the highest standards of scientific integrity and strong leadership will be maintained."

The secretary also commended Healy for her NIH leadership:

"She has been a strong leader and a strong advocate for NIH programs. She has provided a national voice in support of basic research, and with her vision of strategic planning for the NIH, she has helped provide better focus for the institutes."

Statement by Dr. Bernadine Healy, Director, National Institutes of Health

Today I am announcing that I will step down as director of the National Institutes of Health (NIH) by June 30, 1993. My announcement today will help ensure that there is time for an orderly transition without the abrupt changes that sometimes challenge government agencies.

Since Dr. Shalala has become secretary of Health and Human Services, I have met with her many times and I am confident of her support and commitment to the recently completed NIH strategic plan; to basic science and the expanded Human Genome Project; to our efforts on women's health and minority health, and to recruitment and retention of the best scientific talent.

I am deeply honored to have served as the director of this great institution. Most of my professional life has been nurtured by the NIH, both directly and indirectly, at Harvard, Johns Hopkins and the Cleveland Clinic Foundation. The NIH claims a piece of my soul and will always have a place in my heart.

I firmly believe, as I said in my confirmation statement to the Senate, that the NIH is a national treasure. The fruits of NIH's medical research have proven to be among our Nation's greatest achievements, saving countless lives and profoundly improving the human condition. The NIH translates the American public's investment into far-reaching biomedical discoveries and a wealth of scientific knowledge which benefits all of humankind.

I have been privileged to work with superb scientists and administrators here at NIH, who are firmly committed to our mission: individuals including the diverse and determined group of deputy directors, Institute directors, as well as the Office of the Director staff, many of whom I have personally recruited. These individuals are not only valued colleagues and dear friends, but most importantly provide a core of talent and leadership that will ensure NIH's success in the months and years to come.

In closing, let me quote the American playwright, Howard Sackler, who said "to intervene, even briefly, between our fellow creatures and their suffering or death, is our most authentic answer to the question of our humanity."

NIH is this Nation's most authentic answer to the question of our humanity, and I am proud to have been at her helm.

'Glorious History' Noted

Biostatistics Conference Draws Distinguished Alumni

An audience of more than 250 biostatisticians and others interested in applications of statistics to medicine filled the Lister Hill auditorium and two overflow rooms for the recent NIH Conference on Current Topics in Biostatistics.

The 2-day conference was held to commemorate almost five decades of contributions of biostatisticians to NIH and to create an inter-institute forum for discussion of approaches to the design, implementation and analysis of biomedical studies. Statisticians representing nearly all of the institutes discussed problems ranging from sampling methods to estimating the number of neurons in tissue culture wells to the design of large, simple clinical trials for the study of AIDS treatments.

NIH alumni—statisticians who previously worked at NIH beginning in 1947—were invited discussants. These individuals included: Dr. John C. Bailar III (1956-1980 at NCI), currently professor of epidemiology, McGill University; Dr. Seymour Geisser (1955-1965 at NIMH, NIAMD), currently professor and director, School of Statistics, University of Minnesota; Nathan Mantel (1947-1974 at NCI), currently research professor of statistics, American University; Tavia Gordon (1954-1977 at NIH, NCI, NHLBI), currently research professor, George Washington University biostatistics center; Dr. Marvin Zelen (1963-1967 at NCI), currently professor of biostatistics, Harvard University; Fred Ederer (1957-1986 at NCI, NIH, NEI), currently senior epidemiologist, EMMES Corp.; and Dr. Marvin A. Schneiderman (1948-1980 at NCI), currently principal scientist, National Research Council.

A banquet was held following the

first day of scientific sessions to honor those statistical scientists who were the catalysts for the initiation and growth of biostatistics beginning in the late 1940's. The conference and banquet celebrated past achievements as well as ongoing methodologic and collaborative research in biostatistics.

NIH statisticians have made seminal contributions to applied and theoretical statistics particularly in biomedical research. This work includes the widely used Mantel-Haenszel test, which allows the combining of evidence from a number of 2x2 contingency tables; the development of the odds ratio as a measure of association in case-control studies; the formulation of logistic regression for the estimation of the probability of disease as a function of risk factors and confounding variables; and the methodology for "early" stopping of clinical trials where efficacy is demonstrated prior to the scheduled completion of the trial. This early work defined the unique and important role that statistics played at NIH and set the stage for the continuing role of statistics in the biomedical community today.

NIH director Dr. Bernadine Healy



Nathan Mantel

addressed the conference, saying, "Statistics has had a glorious history at NIH. Indeed, for almost 50 years NIH has been home to the most influential biostatisticians and most profound developments in the design and analysis of biomedical experiments. For example, the statistical foundations for



Dr. John C. Bailar III



Dr. Seymour Geisser



Tavia Gordon

epidemiologic case-control studies, the use of regression models for identification of high-risk individuals and key methodology for the conduct of modern clinical trials all originated with NIH statisticians. Biostatistics, representing the science of the design of biomedical experiments and the analysis of quantitative data, is more important today than ever. We are fortunate to continue to benefit from a community of biostatisticians who provide insight and rigor to NIH investigations."



Dr. Samuel Greenhouse

Dr. Samuel W. Greenhouse (1948 to 1974 at NIMH, NICHD), currently professor emeritus of statistics, George Washington University and associate director of GW's biostatistics center, queried, "Why did we have to wait 45 years to hold this conference, after so many of the illustrious NIH statistical alumni have passed away? We should do this more often." The enthusiastic response of the NIH biostatistics community makes it likely they will.

The organizing committee of the conference has published a 2-volume document on the proceedings of the conference with the program, discus-

BIOSTATISTICS

Program
Discussant Profiles
Abstracts for Presentations



sant profiles and abstracts of presentations. The second volume contains: a pictorial foray into the spirit of biostatistics at NIH; a series of written comments proffered by former NIH biostatisticians on the occasion of the conference; and an alumni directory of NIH biostatisticians. If you would like a copy please write to: Dr. Jonas H. Ellenberg, NIH, NINDS, Biometry and Field Studies Branch, Federal Bldg., 7A12, Bethesda, MD 20892.



Dr. Marvin A. Schneiderman



Fred Ederer



Dr. Marvin Zelen

NIH Notes — October 1992 to January 1993

AWARDS AND HONORS

Dr. Ad Bax of NIDDK's Laboratory of Chemical Physics has been declared the world's most cited chemist. The newsletter *Science Watch* analyzed publication and citation data for articles published in 339 chemistry journals between 1984 and 1990. Only articles that drew 15 or more citations on average were included in the survey. With an average of 47 citations per paper, Bax placed first among the 50 chemists listed ... **Dr. John E. Bennett**, chief of the clinical mycology section in the Laboratory of Clinical Investigation, NIAID, delivered the 21st annual Maxwell Finland Lecture at the recent Infectious Disease Society of America meeting in Anaheim. One of the nation's leading experts on systemic fungal infections, he talked on *Cryptococcus: The Sugar-Coated Killer*, which focused on *Cryptococcus neoformans*, a fungus that infects more than 5,000 Americans each year and is fatal unless treated. Bennett and his colleagues have created a vaccine, now under trial to determine whether it prevents cryptococcoses in patients infected with the human immunodeficiency virus ... **Dr. Samuel Broder**, NCI director, has been awarded the 1992 Griffuel Prize from the Association pour la Recherche sur le Cancer. The prize, 400,000 francs and a glass bowl, is presented annually for outstanding achievement in cancer research. He also received the first Herbert J. Block Memorial Lectureship Award given by the Arthur G. James Cancer Hospital and Research Institute, Ohio State Univ. for his work in cancer research ... **Marianne Chulay**, clinical nurse specialist in the critical care nursing service at NIH, was elected president of the American Association of Critical Care Nurses, which is the world's largest nursing specialty organization, with over 75,000 members in the United States ... **Dr. Gene D. Cohen**, acting NIA director, received a Lifetime Science Award on Nov. 9. Presented by the Institute for Advanced Studies in Immunology and Aging at its

1992 Leadership Awards dinner, the honor recognized his personal commitment to biomedical research aimed at addressing the health issues of the aging, with particular emphasis on Alzheimer's disease research ... **Dr. Ronald Dubner**, chief of the NIDR Neurobiology and Anesthesiology Branch, received an award from the American Pain Society in recognition of his "individual excellence and achievement in pain research." The F.W.L. Kerr Memorial Award was presented to him on Oct. 25 at the society's annual meeting in San Diego, where he delivered a lecture on "Persistent Pain Following Tissue Damage or Nerve Injury: Mechanisms and Treatment." ... **Dr. Joseph F. Fraumeni, Jr.**, director of the Epidemiology and Biostatistics Program, NCI, received on Nov. 20 from Duke University Medical Center its Distinguished Alumnus Award. He was honored for his career as a biomedical scientist ... **Dr. John M. Hallenbeck**, acting chief of the NINDS intramural Stroke Branch, recently received from the Undersea and Hyperbaric Medical Society its highest award. The award from UHMS was given in recognition of his research on the pathophysiological processes of decompression sickness and cerebral air embolism and his development of methods to treat them ... **Dr. Leland Hartwell**, an NIGMS grantee and advisory council member, is the recipient of the 1992 Gairdner Award. He is a professor of genetics at the University of Washington in Seattle, and focuses his research on cell cycle regulation. The \$30,000 prize was presented on Oct. 23 in Toronto ... **Dr. Bernadine Healy**, director of the NIH, has been named winner of the 1992 Sara Lee Frontrunner Award for achievement in government. In November, *Glamour* magazine named her as one of its 10 Women of the Year. The women were chosen for having made "an indelible mark on 1992." She was named for "making women's health a top national priority" ... **Dr. John C. Hoak**, director of NHLBI's Division of Blood Diseases and Resources, has received the American Heart Association's prestigious Scientific Councils Distinguished Achievement Award. The award was presented at AHA's annual meeting, held recently in

New Orleans. It recognizes Hoak's significant contributions to scientific knowledge about cardiovascular medicine and to the association's Council on Thrombosis, which he chaired from 1986-88 ... **Dr. Alice Horowitz**, an education specialist in the Disease Prevention and Health Promotion Branch of NIDR's Epidemiology and Oral Disease Prevention Program, recently was presented with the H. Trendley Dean Memorial Award. She was honored for her efforts to improve oral health by transferring research findings on caries prevention into use by the public and health professionals. She is the first woman to receive the award since it was established in the mid-1960's ... **Dr. Michael A. Kaliner**, head of the allergic diseases section of the Laboratory of Clinical Investigation, NIAID, recently received the Biomedical Research Award at the First National Conference on Asthma Management for his "contributions to the current understanding of asthma, from basic pathophysiology to practical management." His research during the last 15 years has significantly advanced the understanding of three major phenomena in asthma: edema of the airway, increased mucus secretion and airway inflammation ... **Dr. Richard Klausner**, head of NICHD's Cell Biology and Metabolism Branch, has been awarded the 1992 William Damashek Prize by the American Society of Hematology in recognition of his pioneering work in the field of iron metabolism ... **Drs. Hynda Kleinman** and **Yoshihiko Yamada** of NIDR and **Dr. George Martin**, formerly with NIDR and now scientific director at NIA, recently won the Debio Peptide Award. The scientists were honored for their peptide research in NIDR's Laboratory of Developmental Biology ... **Dr. Jeffrey Kopp**, Laboratory of Developmental Biology, NIDR, was honored for the second straight year by the American Federation for Clinical Research with the Henry Christian Award for Excellence in Research. He was recognized for an abstract on skin disorders in HIV-transgenic mice that he submitted for the federation's national meeting ... **Dr. Edward G. Lakatta**, chief of NIA's Laboratory of Cardiovascular Science, is the 1992 winner of the Paul

Dudley White Award. He accepted it during the recent annual meeting of the Association of Military Surgeons of the United States in Nashville. The award recognizes Lakatta, an international leader in cardiovascular research, for "his outstanding clinical and basic research discoveries on how the heart ages." His research ranges from the studies of the heart and circulation in man to how heart cells function, with emphasis on how aging alters this process ...

Dr. Lance A. Liotta, NIH deputy director for intramural research, received on Dec. 15, the ninth annual Barbara Bohen Pfeifer Award for Scientific Excellence from the American-Italian Foundation for Cancer Research ... **Dr. Harald L  e**, NIDR director, has received two honors: the Harvard Dental Medal from the Harvard School of Dental Medicine and a doctor *honoris causa* from the medical faculty of the University of Helsinki. Both recognized his work in dental research both nationally and internationally ... **Dr. Kiyoshi Mizuuchi**, chief of the genetic mechanism section, Laboratory of Molecular Biology, NIDDK, and **Dr. Ira H. Pastan**, chief of the Laboratory of Molecular Biology, NCI, were recently elected to the American Academy of Arts and Sciences in recognition of their contributions to biological science ... **Dr. Carol Nieroda** of NCI's Laboratory of Tumor Immunology and Biology recently received from the Society for Biological Therapy its Presidential Award. Her presentation was judged the best at the Presidential Session of the group's annual meeting ... **Dr. Steven A. Rosenberg**, chief of NCI's Surgery Branch, was presented the Donald Ware Waddell Award on Dec. 11. The award is presented annually to a basic or clinical investigator who had made an outstanding contribution to cancer research. He was cited for developing cancer immunotherapies and for his pioneering work in gene therapy ... **Dr. Gary Striker**, director of NIDDK's Division of Kidney, Urologic, and Hematologic Diseases, has received the Louis Pasteur Medal in Medicine from the Louis Pasteur University in Strasbourg, France. The medal honors "eminent persons of the scientific and medical world." Striker, ninth recipient of the annual award,

was chosen for his "distinguished career as a teacher, investigator and scientist" and for his devotion to increasing resources for kidney disease research ... **Dr. Michael D. Walker**, director of the Stroke and Trauma Division, NINDS has been named a recipient of the Senior Executive Association Professional Development League's 1992 Executive Excellence Award for Executive Achievement.

APPOINTMENTS AND PERSONNEL CHANGES

Dr. W. French Anderson, former chief of the Molecular Hematology Branch, NHLBI, has become professor of biochemistry and pediatrics at the University of Southern California in Los Angeles. He will also establish a gene therapy program at USC. He is, however, not severing his ties to NIH. He will be a special volunteer at NHLBI and will continue as an investigator on the landmark adenosine deaminase (ADA) gene therapy study. He made the move because his wife, Kathryn, accepted the post of surgeon-in-chief at the Children's Hospital of Los Angeles ... **Dr. Claudia R. Baquet**, associate director for cancer control science programs within NCI's Division of Cancer Prevention and Control, has been named deputy assistant secretary for minority health programs in the PHS ... **Dr. Anthony M. Coelho, Jr.**, has been appointed a scientific review administrator in the Review Branch of the Division of Extramural Affairs, NHLBI. He comes to NIH from Texas, where he held the positions of scientist and head of the behavioral medicine laboratory, department of physiology and medicine at Southwest Foundation for Biomedical Research in San Antonio. In addition, he was a professor in several administrative units of the University of Texas Health Sciences Center at San Antonio including the division of surgery/neurosurgery, department of dental diagnostic sciences and department of pediatrics ... **Stephen Ficca** was named NIH associate director for research services on Jan. 10. He has been at NIH for 22 years and was at NHLBI for 5 years as executive officer before being

named acting director of ORS after Norman Mansfield's retirement ... **Dr. Jean Flagg-Newton** recently rejoined NIGMS as a scientific review administrator for the Minority Biomedical Research Support review committee. She comes from Tinker Air Force Base in Oklahoma, where she was an environmental protection specialist. She previously had worked for NIGMS as executive secretary of the Minority Access to Research Careers review committee ...

Dr. Diane Blackmore Forsythe, a clinical veterinarian in NIEHS' Comparative Medicine Branch, has been appointed acting chief of the branch. She will manage a program for experimental animal procurement, housing and utilization for NIEHS and advise institute scientists on appropriate animal models ... **Dr. Chhanda L. Ganguly**, a senior staff fellow at the Laboratory of Cell Biology, NHLBI, has joined the NCRR Office of Review as a scientific review administrator for the Biomedical Research Technology Program ... **Suzanne F. Grefsheim**, former director of the Alfred Taubman Medical Library and coordinator of the Health Science Library at the University of Michigan, has been appointed the new director of NCRR's Library Branch ... **Dr. Kenneth Gruber** recently joined the NIDCD staff as a program administrator in the Division of Communication Sciences and Disorders. He shares responsibility for research grants in the extramural hearing program. Prior to coming to NIDCD, he was professor of physiology at the University of Puerto Rico School of Medicine. His area of research expertise is in neuropharmacology and neurochemistry ... **Dr. Carrie Hunter**, program director of the Community Oncology and Rehabilitation Branch in NCI's Division of Cancer Control and Prevention, has been appointed a special assistant to Dr. Vivian Pinn, director of NIH's Office of Research on Women's Health. She will be a liaison for the women's health initiative ... **Dr. Joseph Jacobs** has been named director of the Office of Alternative Medicine, OD. The office was established last year to study therapies outside mainstream healing such as homeopathy, herbal medicine, electro-magnetism, mind-body control techniques and touch therapy ...

(Notes continued on p. 26)

Notes (continued from p. 25)

Dr. Marian Johnson-Thompson has joined NIEHS as the director of the newly established Office of Institutional Development. In her position, she will serve as the focal point for setting goals to assure diverse populations' participation in the institute's research and training programs ... **Dr.**

Robert W. Kneller has become a program officer for the Pacific and Southern Asia at the International Coordination and Liaison Branch of the Fogarty International Center. Prior to this he was a cancer epidemiology research fellow from 1988 to 1991 studying risk factors for precancerous stomach changes in rural China. He recently served as a consultant to WHO and worked at OSHA as a resident physician in occupational health ... **Dr. Peter Preusch** has joined NIGMS as a health scientist administrator in the Cellular and Molecular Basis of Disease Program Branch. He comes to NIGMS from DRG, where he served as a scientific review administrator in the special review section ... **Leo J. Rossiter** has been named NIH deputy police chief. He previously worked for the Prince George's County police department where he retired as deputy chief of police. His duties will include working with the patrol section and investigation unit and overseeing any labor or management problems, as well as budget and other administrative duties. He will attend roll call, inspection of officers, and review commendations and disciplinary actions ... **Dr. Elliot R. Siegel**, NLM assistant director for planning and evaluation, and manager of NLM's first long-range plan, has been named NLM associate director for health information programs development. He will head the newly created Office of Health Information Programs Development, which will bring together representatives of various library programs—each of whom may be concerned with a different aspect of an information product, service or emerging technology—so that all can work more effectively toward common NLM goals ... **Dr. Christopher Schonwalder** was recently appointed assistant to the director for program coordination for NIEHS. He will work on a wide variety

of programmatic issues including attracting new scientists to environmental health research. He is a graduate of NIH's Grants Associate Program. Prior to this appointment, he served as chief of the Scientific Programs Branch in NIEHS' Division of Extramural Research and Training.

RETIREMENTS

Dr. John M. Dement, chief of the Office of Occupational Health and Technical Services at NIEHS, has retired from both the institute and the Public Health Service. He had been with the institute since 1981. Dement, whose research interests include occupational lung disease with emphasis on the health effects of asbestos and other fibers, came to NIEHS from the National Institute for Occupational Safety and Health in Morgantown, W. Va., where he was deputy director of the division of respiratory disease sciences. At NIEHS, he assumed responsibility for maintaining health and safety standards and procedures for the employees working in NIEHS offices and laboratories. He was also responsible for initiating a new program at NIEHS involving research in prevention of environmental diseases ... **Dr. William Driscoll** has retired after 30 years in the PHS—the last 21 of them at NIDR. He most recently served as chief of the disease prevention section in the institute's Epidemiology and Oral Disease Prevention Program. During his PHS career, he became an international expert on the epidemiology of dental caries, the relationship between fluoride and caries prevention, and methods for delivering fluoride and measuring its efficacy. He has written numerous articles and position papers that were instrumental in the development of policy for the use of dietary fluoride supplements. He plans to continue his involvement in oral health research through consulting work. Now that he has retired he hopes to spend more time on his off-duty passion, driving high-performance sports cars ... **Frieda Egber** has retired after 30 years with the U.S. Navy and NIH. Her career

here has been with the Operations Accounting Branch in the disbursing section and the classification and processing unit. In retirement, she plans to spend time with her grandchildren, and travel ... **Rossie Fitzgerald**, a supervisory grants management assistant in the National Institute of General Medical Sciences, retired recently after 29 years of government service. She spent 24 of those years with NIGMS, and the remainder in the Veterans Administration. She joined NIGMS in 1968 as a file clerk, and over the years advanced to grants clerk and grants technical assistant before her promotion to a supervisory job. She plans to spend her retirement in the Washington area, where she can be with her family. Her hobby is books and she plans to continue as the librarian at the Southern Baptist Church of Washington, D.C. ... **Dr. John Fletcher**, acting head of DCRT's Laboratory of Applied Studies and a widely recognized expert on the application of mathematics to biomedical research, retired on Jan. 3 after 26 years at DCRT. His work at NIH has centered on applying mathematical methods and models to problems in the biological, physical, engineering, and computing sciences. His algorithms for data and model fitting influenced the development of the successful computer program MLAB, which continues to be used widely by scientists at NIH. His retirement plans will combine leisure and teaching ... **Melvin Harding** has retired after working nearly half a century to advance the science of animal care at NIH. He witnessed over the years an era where animal care was informal to its present state-of-the-art position. He started at NIH right after World War II and in 1953 joined NIDR as an animal care technician. He worked for Dr. Rachel Larson, the institute's first female scientist in the dental caries section. He helped establish NIDR's germ-free animal unit, which produced one of the most exciting discoveries in dental research by proving that tooth decay is an infectious disease. In 1968, he became manager of the institute's Animal Care Unit, a position he held until his retirement. He has already embarked on a second career. He will stay in the area,

where he is expanding a business providing custom decorations for special occasions and plans to continue volunteer activities ... **Eddie Harmon** has retired after 38 years in the federal government, including 28 years with NIH. His most recent position was as an animal caretaker in the Laboratory of Analytical Chemistry, NIDDK. In 1964, he joined NIH working at NIAMD. When NIAMD was abolished to establish two separate institutes, he was transferred with his position to NIDDK. He has seen his institute go through five name changes and he has held just as many positions. In retirement, after relocating to Atlanta, he plans to spend time fishing, golfing and traveling ... **Dr. M. David Hoggan** has retired as a senior scientist in the Laboratory of Molecular Microbiology, NIAID, after 29 years of service to NIH and the PHS. His work has furthered research on a number of different viruses. He and his wife have embarked on a new challenge—teaching English to the Chinese. They have taken a 1-year teaching assignment at the Zhenjiang Medical University in Hang Zhou, Province of Zhejiang, People's Republic of China ... **Mariah May** has retired after 34 years in the federal government, including 29 years with NIH. She was most recently an accounting technician in the Federal Assistance Accounting Branch, Division of Financial Management. She plans on visiting her two daughters in Texas and Kentucky, and spending more time with her six grandchildren, a great-grandson, and many family members and friends ... **Sue Meadows** has retired from government service after 31 years at NIH. Since 1971, she had been a writer, editor, and public affairs specialist in the Office of Grants Inquiries, Division of Research Grants. In retirement, she plans to start her own consulting firm, specializing in writing, editing, and desktop publishing, in Martinsburg, W. Va. ... **Dotty Pulver** has retired after a 23-year career with R&W. In retirement, she hopes to spend more time with her three children and eight grandchildren, get her house in order and do some volunteer work with the homeless of Baltimore. She plans to travel abroad to France and Germany.

DEATHS

Dr. Morris Belkin, 91, former chief of the cellular pharmacology section, NCI, and staff scientist in the grants program, NINDS, died of cancer on Oct. 3 at Montgomery General Hospital. He joined NIH in 1947 as chief pharmacologist, and retired in 1970. He was one of the pioneers in the investigation of cancer-active materials from plant sources ... **Dr. Emilie A. Black**, 73, a pediatrician who retired in 1984 as a clinical research official at NIH, died of Parkinson's disease Nov. 18 at her home in Washington. She was assistant director for clinical research at NIGMS where she worked for 16 years. While at NIGMS she was director of the institute's clinical and physiological sciences programs and administered research grants in the fields of trauma, burns and anesthesiology. After she retired, she was a consultant to NIH ... **Dr. Nina Starr Braunwald** died Aug. 5. A cardiothoracic surgeon, she had been associate professor of surgery at Harvard Medical School since 1972, and was on the staffs of Brigham and Women's Hospital, the V.A. Medical Center, and Children's Hospital. From 1958 to 1968, she was deputy chief of cardiac surgery at NIH. She was the first woman to be board-certified in cardiothoracic surgery and to perform open heart surgery. In 1960, while here at the heart institute, she became the first surgeon to replace a mitral valve successfully. After she left NIH in 1968, she established the first heart surgery program at U.C. San Diego ... **Dr. Charles N. Breed, Jr.**, 78, a surgeon at Memorial Sloan-Kettering Cancer Center, died of cancer at his home in Manhattan on Jan. 29. An expert in breast cancer surgery he became a fellow of NCI in 1947 and served at Memorial Hospital. In 1951, he was appointed to the surgical staff at the hospital and associate professor of surgery at Cornell Medical School. He retired in 1974 ... **Bruce Carson**, 72, died on Oct. 2 of cancer. He came to work at NIH in 1961 and worked in Bldg. 1 as chief of the Legislative Division and later as the deputy director of the Office of Program Planning and Evaluation. He retired in 1982 ... **Leroy C. Chisholm, Jr.**, 46, an employee develop-

ment specialist within the NIH Training Center, Division of Personnel Management, died suddenly on Sept. 3. Better known as Roy, he began his career at NIH with the National Cancer Institute in 1972. Since 1974 he had been with the NIH Training Center, where he assumed responsibility for a number of programs including Upward Mobility College, career planning and development, and supervisory and management development ... **Barbara Anne DeGraff**, 53, a secretary at NIDR in the Laboratory of Cellular Development and Oncology, died of cancer Nov. 4 at her home in Rockville. She had worked at NIDR for 17 years. She joined NIDR's Laboratory of Biological Structure in 1975. In 1981, she became the laboratory's senior secretary, and served four chiefs through its many reorganizations ... **Dr. Thelma Brumfield Dunn**, 92, died of congestive heart failure Dec. 31 at a nursing home in Lynchburg, Va. She was one of the world's foremost cancer pathologists and a former NCI scientist. Dunn, who worked at NCI from 1942 until her retirement in 1970, was known by her peers as "The First Lady of Cancer Research," most notably for her research on the pathogenesis of cancer in animals, particularly the laboratory mouse. During most of her career, she served in the Laboratory of Pathology. The Dunn histologic classification of mammary tumors of the mouse made possible scientific correlations of animal age, strain, genetics, breeding, hormonal state, and the etiology of neoplasms. Cancer investigators worldwide adopted her "sorting scheme" for their experiments on mouse mammary cancers ... **Alice Fordyce**, 86, executive vice president of the Albert and Mary Lasker Foundation and former director of the Albert Lasker Medical Research Awards Program, died Sept. 9 in New York City of lung cancer. She helped her older sister Mary Lasker to establish the medical research awards program in 1944 ... **Helen E. "Polly" Gillette**, 57, a computer specialist with the Division of Computer Research and Technology, died of pneumonia Oct. 29 at Sibley Memorial Hospital. She had post-polio syndrome. In 1972, she joined NIH, where she worked in the Division of Management Policy and

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computer research and the office of information resources management ... **Dr. Ira Goldstein**, 50, a nationally renowned rheumatologist and a past president of the American College of Rheumatology, died Dec. 2 at Mount Sinai Medical Center of metastatic lung cancer. He was the Murray M. Rosenberg professor and chairman of the Samuel Bronfman department of medicine. He was an expert on inflammation, the process by which the body responds to injury and wrote the definitive "Inflammation, Basic Principles and Clinical Correlates," now in its second edition. He was at NIH from 1969 to 1971 ... **Louise Doffermyre Goubeau**, 78, a retired employee development specialist who helped set up training courses at NIH, died of pneumonia Nov. 25 at the Wilson Health Care Center of Asbury Methodist Village in Gaithersburg. She retired in 1975 after 17 years at NIH ... **Harvard Lamar Gregory**, 63, property manager for Old Georgetown Village, died of a cerebral aneurysm Nov. 17 at Johns Hopkins Hospital. From 1977 until 1990, he was contracting officer and contracts administrator at NIH ... **Alice L. Hardy**, 82, a retired supervisor of telephone operators at NIH, died Jan. 27 at Suburban Hospital. She had Sjogren's syndrome, a musculoskeletal disorder. She joined NIH in 1945 and retired in the early 1970's ... **Dr. William Fields Harrington**, 72, a biochemist long associated with NIH activities who was the Henry Walters professor of biology at Johns Hopkins since 1975, died suddenly of heart failure on Oct. 31 at his home. He was a biochemist at NIH from 1956 to 1960. He was recruited by Johns Hopkins University as professor of biology in 1960. At that time he submitted a grant application to NIH, which has since provided his major research funding. The grant, originally entitled "Biophysical Chemical Studies of Fibrous Proteins," was awarded MERIT status, a 10-year award, upon competitive renewal in 1987. At the time of his death, the award was in its 33rd year of continuous support by NIH. Most recently, he had served as a charter member of the National Arthritis and Musculoskeletal and Skin Diseases Advisory Council (1987-

1991) ... **Walter E. Howard**, 71, an electrician who was a retired NIH employee, died of cancer Nov. 22 at Suburban Hospital. In 1962, he joined NIH and he retired in 1991 as an electronics planner-estimator ... **Dr. Bill H. Hoyer**, 70, a microbiologist who retired in 1986 as a senior researcher and faculty member at Georgetown University Medical School, died of cancer Nov. 23 at his home in Bethesda. In 1948, he was commissioned in the U.S. Public Health Service. He worked at the Rocky Mountain Laboratory in Hamilton, Mont. until 1962, when he transferred to NIAID where he headed the biophysics section for 2 years ... **Dr. Anthony Jong**, assistant dean for student affairs at the Harvard School of Dental Medicine before becoming an associate dean at Boston University, died July 22. He was a consultant at NIH, and wrote *Dental Public Health and Community Dentistry* ... **Dr. Bharati Joshi**, 55, a neurologist, died Nov. 30 at Washington Adventist Hospital of pancreatic cancer. She was a fellow in neurology at NIH from 1978 to 1980 when she entered private practice ... **Dr. Werner H. Kirsten**, 67, a National Cancer Institute associate director who headed the Frederick Cancer Research and Development Center, died suddenly of a heart attack on Dec. 24 in Chicago, Ill. An eminent cancer researcher, he came to NCI in 1988 from the University of Chicago, where he spent most of his career. After joining the Chicago faculty as an assistant professor in 1961, he rose steadily to become chairman of the pathology department in 1972. First among his many notable research contributions was his 1967 discovery of a virus that he showed could cause tumors in mice and rats. Dubbed the Kirsten mouse sarcoma virus, it has been widely used in animal models of cancer. The virus is also important because it contained one of the earliest known versions of the ras oncogene, a cancer-causing gene that has since been found in many human and animal tumors ... **Dr. Dale Elroy McFarlin**, 56, chief of the neuroimmunology branch of NINDS, died Oct. 16 at his home in Potomac after a heart attack. He specialized in research on multiple sclerosis. In 1963, he joined the staff of NINDS as a clinical associate. From NIH

he went to London in 1969 and then he became an associate professor of medicine at Emory University School of Medicine. In 1975, he returned to NIH as chief of the neuroimmunology branch ... **Delbert L. Nye**, 73, a Public Health Service officer who retired as chief of the Normal Volunteer Program for Medical Research at NIH, died of cancer Nov. 5 at the National Naval Medical Center. He was with the Public Health Service at NIH for 24 years. He began as a medical caseworker at the Heart Institute and later was chief of the volunteer program at the Clinical Center ... **Neil Robert Parker**, 39, died of kidney failure Oct. 24 at Shady Grove Adventist nursing home in Gaithersburg. He did personnel work with the Clinical Center from 1985 until 1990 when he went to work as a personnel administrator with the Agency for International Development ... **Dr. Frank J. Rauscher, Jr.**, 61, former director of the National Cancer Institute, died Dec. 31 at a hospital in Nyack, N.Y., after a heart attack. He had worked for NCI from 1959 to 1976. During his years at NCI, he served as head of the viral oncology section and etiology director before become institute director in 1971. He held that job for 5 years before resigning in 1976. He left NCI and joined the American Cancer Society where he served as senior vice president and research director until 1988. Since 1988, he had been executive director of the Thermal Insulation Manufacturers' Association in Stamford, Conn. There, he helped direct research on noncarcinogenic thermal insulation materials to replace asbestos. At NCI, he discovered a murine leukemia virus that now bears his name. The Rauscher leukemia virus is widely used in laboratory research in such areas as cancer and AIDS research ... **Dr. Ralph R. Reed**, 65, a cardiologist and internist who was the senior medical adviser in the Washington office of the American Medical Association, died of lymphoma Nov. 27 at Sibley Memorial Hospital. He was a postdoctoral fellow at the National Heart Institute ... **Jean Russell**, 64, died Oct. 16 in Birmingham, Ala., while awaiting heart surgery. She worked for the Public Health Service here from the late 1960's until retiring in 1981. She worked primarily

at NHLBI as secretary to the director, Division of Heart and Vascular Diseases, and as administrative assistant to the director, Office of Prevention, Education, and Control ... **Dr. Leonard A. Scheele**, 85, a former U.S. surgeon general as well as NCI director, died of pneumonia Jan. 8 at George Washington University Medical Center. He began his career with the U.S. Public Health Service in 1934. In 1937, he transferred to NCI in Washington. Following World War II, he returned to NCI and the following year he was named director. In 1948, President Truman named him U.S. surgeon general. He resigned in 1956, but during the time he was in the post he was credited with playing a major role in certifying and making available the Salk polio vaccine. He was also responsible for building the 500-bed research clinic at NIH and establishing the National Library of Medicine. He became president of Warner-Lambert Pharmaceutical Co. in the 1960's

and returned to the Washington area after he retired ... **Dr. William Henry Sebrell**, 91, a retired assistant surgeon general in PHS, a former director of NIH, and emeritus professor of nutrition at Columbia University, died of cancer Sept. 29 at his home in Pompano Beach, Fla. He had a distinguished career in nutrition research education and worked on international nutrition problems. He first recognized and described the dietary deficiency disease ariboflavinosis, and made significant contributions to knowledge of dietary needs and deficiencies. In 1948, he became director of the Experimental Biology and Medicine Institute and on Oct. 1, 1950, was appointed director of NIH. He retired on July 31, 1955. As director of NIH, he opened the Clinical Center and set policies for its operation. He also oversaw the rapidly expanding research grants program at NIH. In 1957, he became professor of nutrition at Columbia University School of Public

Health, where he developed the Institute of Human Nutrition. After retiring from Columbia in 1971, he became the first medical director of Weight Watchers International ... **Dr. Saleem A. Shah**, 60, a senior scientist at NIMH, died Nov. 25 at the Shock Trauma Unit at the University of Maryland Hospital in Baltimore. He had suffered multiple injuries in a Nov. 19 traffic accident. He was a specialist in law and mental health studies. In 1966, he joined NIMH, where he directed a multi-disciplinary program of research on antisocial and violent behavior that included law and mental health studies as one of its leading priorities. He resigned from that position in 1987 to concentrate on research, writing and consultation as a senior scientist ... **Dr. James Marshall Stengle**, 75, an authority on blood diseases and a retired director of the blood section at NHLBI, died of respiratory failure Oct. 9 at Loudoun Hospital Center in Leesburg. He had pancreatitis. He transferred to NIH in 1953. He spent three years studying at Oxford University with Dr. R.G. MacFarlane, a noted hematologist. When he returned to NIH, he became head of the blood section in what was then called the heart department. He did research on leukemia and helped develop drugs to treat the disease. He retired from NIH in 1978 ... **Dr. Helen Griffin Tibbitts**, 86, former NIH administrator, died of a heart attack Dec. 19 at a nursing home in Newton, Mass. In the mid 1950's she came to work at NIH, where she was executive secretary of the nursing research study section in the Division of Research Grants. In 1966, she was appointed executive secretary of the behavioral science and biostatistics fellowship review committee. She retired in 1971 ... **Delta Emma Uphoff**, 70, an NCI scientist for more than 40 years, died Aug. 24 of lung cancer. She started working at NCI in 1949 as a research biologist in the Laboratory of Biophysics with Egon Lorenz on radiation biology. She did pioneering work on the restoration of mice after lethal doses of radiation. She officially retired from the Division of Cancer Biology, Diagnosis, and Centers, NCI, in December 1989, and then became a guest researcher ...

(continued on p. 30)



A January 1952 photo taken by NIH photographer Sam Silverman shows (from l) U. S. surgeon general Dr. Leonard A. Scheele, Dr. C. H. Andrewes, a virologist from the National Institute for Medical Research, London, and NIH director Dr. William Henry Sebrell. Both Scheele and Sebrell are recently deceased.

(continued from p. 29)

Dr. Stewart H. Webster, 92, a retired NIH research chemist, died Jan. 24 at Wilson Health Care Center at Asbury Methodist Village in Gaithersburg after a heart attack. He joined the NIH staff in 1937. During World War II, his work at NIH included testing of air pollutants that were causing sickness among crew members at the Navy submarine base at New London, Conn. In 1951, he was assigned to Nevada where he studied the effects of radiation on animal and plant life at an atomic bomb test site. He retired in 1965 ... **Dr. Gilbert Llewellyn Woodside**, 83, a zoologist and former deputy director of NICHD, died Dec. 14 at a health care center at Delray Beach, Fla., after a stroke. He joined NICHD in 1963 as assistant to the director for Scientific Program Planning and Development. In 1967 he became associate director for Extramural Programs, and in 1975, deputy director. His major scientific interests focused on embryology. He conducted investigations on the effects of hormones on embryonic growth and development and embryonic mortality as influenced by nutrition. He retired in 1978 ... **Dr. William G. Workman**, 93, a physician who was a retired captain in the U.S. Public Health Service, died of leukemia Sept. 22 in Silver Spring in the Carriage Hill nursing home, where he had lived the last two years. After he graduated from medical school he was commissioned in the PHS and came to NIH in 1931. The rest of his career was spent at NIH where he worked in preventive medicine. He was chief of the Laboratory of Biologics Control from 1949 until retiring from the Public Health Service in 1963. He then worked on the field staff of the American Medical Association's Council on Medical Education. He was a consultant to the Maryland State Health Department on issues related to nursing homes before retiring in 1978 ... **Dr. Robert Stuart Wright**, 79, a retired psychologist at NIH who had supervised research grants in the behavioral sciences, died of pneumonia Jan. 4 at Cameron Glen Care Center in Reston. He had worked at NIH from 1963 to 1988, first as a grants associate and later as a research scientist with the Division of Research Grants.

NIH Retrospectives



Spring 1953

On Friday evening, Jan. 30, the new NIH switchboard began operation. It is located in the new Clinical Center's first floor basement. The board is larger than the old one, which was located in Bldg. 3, and will provide the necessary additional service required when the CC begins operation ... Regular tours of the CC started on Feb. 16, so NIH employees could see the new facility before patients are admitted ...



Spring 1963

Dr. Luther L. Terry, surgeon general of the Public Health Service, has announced the establishment of two additional institutes here at NIH. They are the National Institute of Child Health and Human Development (NICHD) and the National Institute of General Medical Sciences (NIGMS). Dr. Robert A. Aldrich, professor and chairman of the department of pediatrics at the University of Washington School of Medicine, has been named director of NICHD, which is expected to be in operation early in March. Dr. Clinton Powell, who has been chief of the Division of General Medical Sciences since last August and has served at NIH since 1954, has been appointed director of NIGMS ... Dr. Wyndham D. Miles, the NIH historian, is trying to assemble a complete file of NIH telephone directories for reference use. He does not

have any prior to 1953. {Editor's note: The current NIH historian, Dr. Victoria A. Harden, is looking for telephone directories for 1948 to 1953. She also needs NIH Scientific Directories/Annual Bibliographies for the time before 1970 and 1980, 1985 and 1986. If you have any of the above please call her at (301) 496-6610.}



Spring 1973

Edith F. Phillips has been appointed administrative officer of the Division of Cancer Grants, NCI. She is the first woman in the institute to be named as administrative officer ... At a press briefing at NIH on Feb. 9, Soviet and American heart experts described plans for a cooperative research attack against the greatest cause of death in both countries—coronary heart disease ... A committee has been formed to consider all phases of parking administration and traffic control on the reservation.



Spring 1983

The advisory committee to the NIH director (DAC) recently held its first meeting under of the chairmanship of Dr. James B. Wyngaarden, NIH director ... On Feb. 11, the area suffered a blizzard of major proportions. Despite the severe weather, the Clinical Center remained open and functioning as did the other buildings on the campus ... Alzheimer's disease has been traced back eight generations in one family by Linda Nee of the Laboratory of Clinical Science, NIMH.

BALLOT**NATIONAL INSTITUTES OF HEALTH ALUMNI ASSOCIATION****PLEASE TEAR OUT AND RETURN WITH YOUR VOTE**

In accordance with the bylaws of the NIHAA, alumni members of the association are to elect one-third of the board of the association. The nominating committee, appointed by Acting President John Sherman, has nominated the alumni members listed below, each of whom has agreed to serve on the board of directors if elected, to occupy positions on the board left open by expiring terms of office of present member. Each alumnus(a) member may vote for three of the nominees. Please note that associate members (current NIH employees) are not eligible to vote in this election.

NOMINEES FOR BOARD OF DIRECTORS

Please vote for up to three (3) and return your ballot to the NIHAA office, 9101 Old Georgetown Rd., Bethesda, MD 20814, by May 7, 1993.

- ☐ Dr. William R. Carroll- Scientist, NIAMD, retired
- ☐ Ms. Belia Ceja - Assistant to Directors, NIH, retired
- ☐ Ms. Mary Calley Hartman - current Board member
- ☐ Mr. Terry Lierman - current Board member
- ☐ Dr. Thomas E. Malone - Deputy Director, NIH, retired
- ☐ Dr. Seymour Perry - Assoc. Director, NIH, retired
- ☐ Dr. Paul Peterson -Assoc. Director, NIAID, retired
- ☐ Mr. Randy Schools - current Board member
- ☐ Ms. Helen Schroeder - current Board member
- ☐ Dr. Emma Shelton - Res. Biologist, NCI, retired



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If You Are Not Yet A Member of the NIHAA [Clip and mail]

NIHAA Office
9101 Old Georgetown Rd.
Bethesda, MD 20814

I would like to apply for membership in the NIH Alumni Association. My NIH position:

(Title)	(Organization)
from _____ to _____ (Years)	My membership dues of \$ _____

are enclosed payable to FAES/NIHAA.

(Please type or print)

Full Name: _____

Title: _____

Place of Employment if applicable: _____

Mailing Address: _____

City, State and Zip Code: _____

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You will soon be receiving a dues renewal notice from NIHAA. Please return it promptly. Dues are an important source of our income and we need your continued support.

Memberships

Please indicate membership desired:

Type	Annual Dues
Alumni (for past NIH employees only)	\$25.00
Associate (for current NIH employees)	\$25.00
Friends (for individuals interested in NIHAA's goals)	\$25.00
Life	\$250.00

Donations or bequests are welcome.

Please indicate amount here

\$ _____

NIH Alumni are people who have worked or studied at NIH. Present NIH staff are invited to join as associate members.

NIHAA Update
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Nobel Laureate Harold Varmus Nominated as 14th NIH Director Ruth Kirschstein Named Acting Director



Dr. Ruth L. Kirschstein, acting NIH director

FIC 25 Years Old In '93

Scholars-in-Residence Program Celebrates

By Dr. Peter Condliffe

This year, the Fogarty International Center (FIC) is 25 years old. The center was created by Executive Order in 1968 as a memorial to the late Rep. John E. Fogarty who, during his long career as a congressman from Rhode Island, became a powerful advocate of international collaboration in health research. In his later years in Congress, he became deeply interested in international health and was often a member of the U.S. delegation to the World Health Assembly where he advocated collaborative research at the international level.

When the FIC was founded the Scholars-in-Residence Program was created to bring biomedical scientists

(see *Scholars* p. 17)

President Clinton on Aug. 3 announced his intention to nominate Dr. Harold Eliot Varmus as the 14th director of the National Institutes of Health. A Senate confirmation process must precede Varmus' taking over leadership of the institutes.

Winner of the Nobel Prize in 1989 for his work in cancer research, Varmus, 53, is a professor of microbiology, biochemistry, and biophysics, and the American Cancer Society professor of molecular virology at the University of California, San Francisco. He is a leader in the study of cancer-causing genes called "oncogenes," and an internationally recognized authority on retroviruses, the viruses that cause AIDS and many cancers in animals.

Thirty-eight-year NIH veteran Dr. Ruth Kirschstein, director of NIGMS

(See *Director* p. 6)



Dr. Harold E. Varmus, director-designate

Research Festival '93 Schedule

NIHAA Members Invited To Alumni Symposium

The first morning of NIH Research Festival '93—Monday, Sept. 20—has been designated National Institute of Diabetes and Digestive and Kidney Diseases Alumni Day. This event is being celebrated with a symposium entitled "Contributions of Basic Science to Biomedical Research" sponsored by NIH and NIDDK in honor of Dr. Elizabeth F. Neufeld, recipient of the 1993 Distinguished Alumni Award.

Neufeld was chosen for her outstanding contributions toward the understanding and diagnosis of a group of hereditary diseases known as mucopolysaccharide storage disorders, including Hurler's and Hunter's syndromes. These often fatal disorders are characterized by an excessively high accumulation of mucopolysaccharides within

(See *Symposium* p. 7)

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Nursing Center Becomes 17th Institute at NIH

What's in a name? If the staff of the new National Institute of Nursing Research were asked this question, the answer would surely be "a lot more than one would think." Formerly the National Center for Nursing Research, the newly created institute, its staff, friends, colleagues and the nursing community are looking forward to celebrating the new status.

"People ask me why institute status is so important," said Dr. Ada Sue Hinshaw, NINR director. "I tell them that it is a matter of perception, which includes a sense of stability, stature and importance for nursing research within the health research community."

The change from center to institute began on the evening of June 10, when President Clinton signed the NIH Revitalization Act of 1993, thus creating the NINR, among other things. HHS Secretary Donna Shalala then signed the corresponding *Federal Register* notice on June 14, which formally added the seventeenth institute to NIH. In her press release announcing the NINR, Secretary Shalala said, "I am particularly pleased that nursing research has received this recognition. Nursing research makes a vital contribution to improving the nation's health. Strengthening that research role is certainly



NATIONAL INSTITUTE OF NURSING RESEARCH

The National Institute of Nursing Research logo. The NR stands for nursing research, and the flame symbolizes knowledge.

something I am proud to support."

The institute's purpose is to provide a strong scientific base for nursing practice, answering such questions as: how can nurses help mothers-to-be prevent low birth weight babies? How can the extent of a child's pain be determined so that the right help can be given? What can nurses do to help women deal with the typical symptoms of menopause? How can older people live independent lives as long as possible?

In addition to ameliorating illness, nurse scientists study health promotion and disease prevention, including how to motivate people to adopt healthy lifestyles. Innovative approaches are also developed and tested to improve the delivery of health care through high quality nursing services. Nursing research is strongly collaborative. Nurse scientists work closely with many health disciplines to find answers to health problems.

According to Hinshaw, "What has been especially gratifying is the support, encouragement and assistance of our NIH colleagues dating from the time we first arrived on campus in 1986. We look forward to continuing our good relationships and productive collaborations as we all work towards furthering research in the interest of good health."



Dr. Ada Sue Hinshaw

Thank you to our friends

The NIHAA warmly welcomes the following organizations that joined in the category of "Friends" and wishes to acknowledge its appreciation for their generous support:

American Association of Retired Persons
University of Alabama School of Medicine at Birmingham
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Parke-Davis Pharmaceutical Research
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Wyeth-Ayerst

We also would like to thank Glaxo Inc., Sandoz Research Institute and the Upjohn Company for bearing the considerable expense of underwriting NIHAA *Update*.

The Foundation for Advanced Education in the Sciences (FAES) has generously and continually supported NIHAA.

We would also like to express our deep appreciation to the following contributors to NIHAA-sponsored events in 1992:

Charles River Laboratories
National Foundation for Infectious Diseases
Peptide Technology Limited
Takara Shuzo Co., Ltd.
Warner-Lambert Parke-Davis Pharmaceutical Research.

Credit

NIHAA Update is supported by grants from Glaxo Inc., Sandoz Research Institute and the Upjohn Company.

Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814, (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or comments on and suggestions for the NIHAA Update, please drop a note to the editor. We reserve the right to edit materials.

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Greetings from the New NIHAA President, Thomas J. Kennedy, Jr.

The highlight—or perhaps more accurately, the lowlight—of the past year was the calamity that befell Joe Held, president of NIHAA. Out of the blue last October he had a serious intracranial hemorrhage from an aneurysm; was suspended precariously between life and death for a seemingly endless period, and then hung for an agonizingly extended interval in a state in which the completeness of recovery was in deep doubt. But I guess it was a highlight after all because, all of a sudden, everything changed for the better and Joe is now his old self—energetic, full of bright ideas, and working hard to inspire us all onward and upward. Again, personal experience brings home the realization that modern medicine is full of wonders.

During Joe's long incapacity, John Sherman, vice president, and Cal Baldwin, secretary-treasurer, stepped into the breach smartly and kept the board functioning smoothly. We owe both a big vote of thanks.

The headline on one story in the last issue of the *Update* jumped the gun by a soupçon. Rep. William H. Natcher (D-Ky.) got his "brick and mortar" recognition as described, when ground was broken in September 1992 for the new building on the NIH campus that will bear his name. However, it was not until the annual meeting of the NIHAA on May 15, 1993, that our organization's first Public Service Award was bestowed. The occasion was a very joyous and heartwarming one. Mr. Natcher came early and stayed late. Before his investiture, he mingled with a splendid turnout of our members and heard a most illuminated review by Lance Liotta, deputy director for intramural research, about the current status as well as the future direc-



Dr. Thomas J. Kennedy, Jr.

tion of intramural research at NIH.

John Sherman presented the NIHAA Public Service Award, a framed watercolor of the William H. Natcher Bldg. done by Storm Whaley, retired associate director for communications and NIHAA board member. Enriched with appropriate sentiments, the presentation had the intimacy and immediacy of a citation that could only come from a collaborator who had known and admired the awardee for almost as long as the latter had served on the House appropriations committee. Mr. Natcher's acceptance—courtly, modest and moving—made incontestably evident his convictions about the marvelous promise that biomedical research holds for the health and well-being of the American people. He earnestly solicited our advice in helping him make the right decisions on the scope, direction and magnitude of national programs in biomedical and behavioral research in both his formal acceptance speech and his personal and informal conversations with members after the meeting was adjourned.

(See *Greetings* p. 4)

Greetings (continued from p. 3)

Betimes, to our surprise and delight, he sat through the routine, perhaps tedious, ritual of an annual business meeting.

Mr. Natcher's extraordinary commitment to improving the health of people through research became evident again recently when that "ole magician" pulled at least five rabbits out of the hat to add more than \$600 million over last (FY 1993) year's level and \$269 million over the President's request for this year to the House's appropriation for NIH in what is probably the most grim budget year in the last forty. Since the Senate will not act until September, the final Congressional word has yet to be spoken. But there is no doubt as to where Bill Natcher's heart lies.

The NIHAA annual meeting ratified the slate of officers and board members elected by the members and the board; these are listed on p. 3 in the masthead.

Nat Berlin, in residence at NIH for a sabbatical, was pressed into service to help the Alumni Association design an event, perhaps an annual one, that would enable it to make a finite and visible contribution to the advancement of public policy in the domain of biomedical research. Working alone at first, but gradually picking up Alan Schechter, Gordon Wallace, John Sherman and yours truly as collaborators, a "Forum on the Future of Biomedical Research" is now in a late state of gestation. Stay tuned for details.

The Alumni Association, on June 30, 1993, the eve of the new "house staff" year, cosponsored with the Office of Education, a reception for the incoming clinical associates. This was the second consecutive year in which we played this role and it is our hope that the reception and NIHAA's role in it will become a regular item on the NIH Calendar of Events. The tyros received



Acting NIHAA President John Sherman (l) presents to Rep. William H. Natcher (D-Ky.) the 1993 NIHAA Public Service Award.

a warm welcome from a distinguished group of NIH scientists and had the opportunity to socialize with them in the congenial atmosphere of the Mary Woodard Lasker Center. They also

heard from Richard Klausner his personal saga, a clinical associate of yesterday and now just elected to the NAS; and soothing words of encouragement were offered by two young



Dr. Bruce Chabner, director of the Division of Cancer Treatment, NCI, talks with two of the incoming clinical associates at the welcoming reception on June 30 at the Mary Woodard Lasker Center.

Calendar of Exhibits and Upcoming Events

scientists, Griffin Rodgers, NIDDK, and Michele Evans, NIA, who had started as clinical associates in just the last few years. Many of you probably remember the anxieties and misgivings that plagued you as you embarked upon your stint as a clinical associate. It was a nice affair! That's the sort of thing your dues money supports.

The Alumni Association is gradually expanding both what it is doing and its ambitions for what it would like to do to assist NIH. My interactions with the members of the association who volunteer their time and effort so generously have persuaded me that all feel they owe a profound debt of gratitude to this great federal agency, the National Institutes of Health. The only limitations on repayment are our ability to conceive ways to do it and our capability to amass the resources to concretize our aspirations. Thus the board and officers solicit and welcome the thought and ideas of the members on activities that could be incorporated into NIHAA's agenda. Obviously, our reach has long exceeded our grasp—the damnable fate of all impecunious organizations committed to great causes.

In the past year, the NIHAA has begun to try to enlist institutional members from among individuals and organizations that also have reason to be grateful for the NIH-driven advances in science and that are in a much better position to provide additional impetus to our efforts. If you have the ear of any such potential contributors, encourage them to make common cause with us. Also, strange as it may seem, the NIH has neither a record of who has worked on the campus nor any ideas as to how former staff can be located. For that reason, please let us know the whereabouts of any of your erstwhile Bethesda colleagues who are not now members of the NIHAA.

September—December

An exhibit in honor of the 500th anniversary of "Paracelsus and the Medical Revolution of the Renaissance" is on display in the front lobby of the NLM (Bldg. 38, 8600 Rockville Pike) until Dec. 31. For further information call Dr. Philip Teigen at the History of Medicine Division, NLM, (301) 496-5405.

September—November

Research Festival '93

- Sept. 20—NIH/NIDDK Alumni Symposium on Monday morning from 8:45 to 12 noon in Masur Auditorium, Bldg. 10.
- Sept. 20, 21 and 22—Additional symposia, workshops and coordinated poster sessions
- Sept. 23 and 24—Technical Sales Association Scientific Equipment Show

Medicine for the Public:

- Sept. 28—Glaucoma: Don't Lose Sight of It
- Oct. 5—Understanding the Healing Arts: Alternative Medicine at NIH
- Oct. 12—Upright or Laid-back: How We Handle Stress
- Oct. 19—Blood Transfusions: Issues and Answers
- Oct. 26—Spinal Cord Injury: New Developments in Treatment
- Nov. 9—Obesity: The Whys and Wherefores

A lecture series on health and disease sponsored by the Clinical Center, NIH. The lectures are free and held on Tuesday evenings at 7 in Masur Auditorium, Bldg. 10. For information call (301) 496-2563.

October

On Saturday, Oct. 9, 1993, the mem-

bers of the NIH Alumni Association have been invited to tour the newly opened Howard Hughes Medical Institute, 4000 Jones Bridge Road, Chevy Chase at 2:00 p.m. Postcards with details will be mailed in September to local chapter members.

On Thursday, Oct. 21, 1993, from 5:30 to 7:30 p.m. the NIHAA will host a reception at the Embassy of the Federal Republic of Germany to honor the visiting German scientists at NIH. Invitations will be mailed in September.

October—April 1994

The Foundation for Advanced Education in the Sciences, Inc., will sponsor nine concerts in the 1993-94 season.

The concert dates are:

- Oct. 10—Peter Serkin, piano
- Oct. 17—Tokyo String Quartet
- Nov. 21—Ridge Ensemble with C. Raim, piano
- Jan. 30, 1994—Richard Goode, piano
- Feb. 13—Trio Fontaney
- Mar. 13—Emanuele Segre, guitar, and Friends
- Mar. 27—Michel Lethiec and Friends
- Apr. 10—Duo Canino-Ballista
- Apr. 17—Auryn String Quartet
- May 1—Andras Schiff and Yuuko Shiokawa (this concert has been rescheduled to replace the concert of Mar. 14, 1993, canceled because of snow).

Concerts are held on Sundays at 4 p.m. in Masur Auditorium, Bldg. 10. Tickets are required. For more information call (301) 496-7976.

For more information about various lectures and events at NIH, call (301) 496-1766. For information about NIHAA call (301) 530-0567.

Director (continued from p. 1)

for the past 19 years, took over on July 1 as acting NIH director at the request of Secretary Shalala, who also elevated Kirschstein to status as NIH deputy director.

"The role of an acting director of NIH is to maintain stability and the current activities of NIH as a whole in an appropriate and excellent fashion so that the new NIH director can move right in," said Kirschstein.

"I want everyone at NIH to know that there will be no long interim period when there's no one in charge who cares about all the people at NIH," Kirschstein assured. "NIH has been my whole career, except for a short period at FDA. I know many, many people here at all levels of activity, from scientists, to technical people, to support staff, to animal care workers. I want them all to know that a sense of continuity will be maintained. I share a feeling of the importance of everyone's task. We're a team, a family that is quite remarkable. The reason NIH enjoys an excellent reputation is because of the people who work here."

Kirschstein will serve until Varmus is confirmed. The confirmation hearings will take place after Oct. 1.

Varmus would be the first NIH director to have won a Nobel Prize, and is one of the world's most eminent and most honored biomedical scientists. He has been working at the cutting edge of modern cell and molecular biology, and has had an active relationship with NIH for about 30 years as an intramural scientist, grantee, and public advisor.

Varmus and his UCSF colleague Dr. J. Michael Bishop shared a Nobel Prize in physiology or medicine in 1989 for demonstrating that cancer genes (oncogenes) can arise from normal cellular genes, called proto-oncogenes. While investigating a retroviral gene, v-src,

responsible for causing tumors in chickens, they discovered a nonviral src gene, very similar to v-src, present in the normal cells of birds and mammals.

In recent years, his work has assumed special relevance to AIDS, through a focus on biochemical properties of HIV, and to breast cancer, through investigation of mammary tumors in mice. His research activities are currently supported by grants from NIH, including an Outstanding Investigator Grant from NCI, a drug discovery program for AIDS from NIAID, and a structural biology program for AIDS from NIGMS; by his professorship from the American Cancer Society; and by the Melanie Bronfman Award for Breast Cancer.

Varmus is chairman of the board on biology for the National Research Council, an advisor to the Congressional Caucus for Biomedical Research, a member of the joint steering committee for public policy of biomedical societies, and cochairman of the New Delegation for Biomedical Research, a coalition of leaders in the biomedical community. He directed "Winding Your Way Through DNA," a popular public symposium on recombinant DNA staged by UCSF last fall.

The author or editor of four books and nearly 300 scientific papers, Varmus has been elected to the Institute of Medicine, the National Academy of Sciences, and the American Academy of Arts and Sciences. His most recent book, *Genes and the Biology of Cancer*, intended for a general audience, was coauthored with Robert Weinberg for the Scientific American Library. He is an editor of several professional journals, and has served on a variety of review and advisory boards for government, biotechnology firms, and pharmaceutical companies. Most recently, he was a member of the IOM

committee that advised the Department of Defense on the use of \$210 million allocated by Congress last year for breast cancer research. In 1986, he chaired the subcommittee of the International Committee on the Taxonomy of Viruses that gave the AIDS virus its name HIV.

Varmus was born Dec. 18, 1939, and attended public schools in Freeport, Long Island, N.Y.; his father Frank practiced family medicine, and his mother Beatrice was a psychiatric social worker. He is a graduate of Amherst College (B.A. 1961), where he majored in English literature and edited the school newspaper; Harvard University (M.A. in English literature, 1962); and Columbia University (M.D. 1966). While at medical school, he worked for 3 months at a mission hospital in northern India.

After an internship and residency in internal medicine at Columbia-Presbyterian Hospital in New York, he served as a clinical associate for 2 years (1968-1970) at the National Institute of Arthritis and Metabolic Diseases, where he did his first scientific work in the area of bacterial genetics with Dr. Ira Pastan, who is now chief of NCI's Laboratory of Molecular Biology.

Varmus came to UCSF as a postdoctoral fellow in Bishop's laboratory in 1970, initiating a longstanding collaboration to study tumor viruses, and was appointed to the faculty later that year. He became a full professor in 1979 and an American Cancer Society research professor in 1984.

Varmus is married to Constance Casey, a book critic for the *Washington Post*. They have two sons—Jacob, who studies music and poetry at the University of Iowa, and Christopher, who attends high school in San Francisco. His sister, Ellen Bloch, is a genetic counselor at Oakland Children's Hospital.

Symposium (continued from p. 1)

the cells and tissues, leading to skeletal abnormalities, mental retardation, blindness, and deafness.

She demonstrated that this group of disorders results from defects in degradative enzymes, resulting in mucopolysaccharide accumulation in the lysosomes, thus defining these diseases as lysosomal storage disorders.



Dr. Elizabeth F. Neufeld

Her work led to an ability to diagnose correctly these disorders in patients and to the development of prenatal screening for these diseases. In addition to providing deeper insights into the mechanisms of basic cell biology, her work has possible implications for enzyme replacement therapy to treat these conditions.

Neufeld was a biochemist with NIDDK from 1963 to 1984, during which time she served as chief of the Genetics and Biochemistry Branch. Presently, she is professor and chair of the department of biological chemistry at the UCLA School of Medicine.

In honoring Elizabeth Neufeld as NIDDK alumna of 1993, and with Richard Axel, Robert Lefkowitz,

Arthur Kornberg, Stuart Kornfeld, and Jack Strominger, the program is of interest not only to former NIH'ers, but also to the present NIH intramural community.

It is hoped that NIHAA members will return to the Bethesda campus, attend the NIDDK symposium, and stay to participate in the activities that will follow.

The 1993 NIH Research Festival will continue Monday afternoon, Sept. 20 with a plenary session on "Clinical Applications of Gene Therapy." This year's organizing committee, chaired by Dr. Irwin Kopin, NINDS scientific director, has chosen "Molecular Medicine" as the general theme. On

(See Symposium p. 8)



The NIH Distinguished Alumni Award is a replica of the statue "Healing Waters" by Azriel Awret, which is located near the escalator on the first floor of Bldg. 10.

National Institute of Diabetes and Digestive and Kidney Diseases 1993 Distinguished Alumni Symposium

Monday, Sept. 20, 1993 Masur Auditorium 8:45 a.m. - 12 noon

Opening Remarks

Dr. Phillip Gorden

Director, NIDDK 8:45 a.m.

Speakers

Dr. Robert J. Lefkowitz

Duke University Medical Center
*Molecular Approaches to Interdict
Signalling or Desensitization of
G Protein-Coupled Receptors* 8: 50 a.m.

Dr. Richard Axel

Howard Hughes Medical Institute,
Columbia University
The Molecular Biology of Smell 9:20 a.m.

Dr. Arthur Kornberg

Stanford University School of
Medicine
For the Love of Enzymes 9:50 a.m.

Dr. Jack Strominger

Harvard University
*Presentation of Peptides to the
Immune System by Class I and
Class II Major Histocompatibility
Complex Molecules* 10:20 a.m.

Dr. Stuart Kornfeld

Washington University School of
Medicine
*Trafficking of Proteins to
Lysosomes* 10:50 a.m.

Dr. Elizabeth F. Neufeld

UCLA School of Medicine
The Hurler Syndrome, Revisited 11:20 a.m.

**Presentation of Distinguished
Alumna Award by Dr. Phillip
Gorden** 11:50 a.m.

Symposium (continued from p. 7)

Tuesday, Sept. 21, there will two symposia, both scheduled for the morning on "Transcriptional Control" and "Cellular and Functioning Imaging." On Wednesday, Sept. 22 in the morning there also will be two symposia on "Signal Transduction and Intracellular Trafficking" and "Biobehavior and Health" (See blue sidebar).

Forty-six interactive workshops will be conducted on Tuesday and Wednesday, which will highlight topics of particular interest to researchers from NIH's diverse intramural program. They will be held in various locations throughout the campus.

There will be two equal-length poster sessions at the festival, one on Monday, Sept. 20 and another on Tuesday, Sept. 21. Five hundred posters will exhibit some of the work being done in NIH laboratories. The posters will be displayed in the Research Festival tents that will be set up in parking lot 10-D southwest of the Clinical Center.

The Technical Sales Association will provide refreshments for each poster session. No picnic will be held this year. Thursday, Sept. 23, and Friday, Sept. 24 have been reserved for the TSA scientific equipment show in the Research Festival tents. There will be over 300 exhibitors; it is one of the largest shows on the east coast.

The Research Festival was started 8 years ago by Dr. Abner Notkins, former director of intramural research, NIDR. Efforts by Notkins, subsequent committee chairpersons, the addition of the Alumni Symposium presentations four years ago, and the NIH Special Projects Office headed by Thomas Flavin, have made the event a great success.

The booklet detailing workshops and poster sessions is now available. For information call the NIHAA office at (301) 530-0567 or the NIH Visitor Information Center at (301) 496-1776.

NIH Research Festival '93 General Schedule of Events

MONDAY, SEPT. 20

Symposia

8:45 a.m.-12:00 noon NIDDK Alumni Symposium:

Contributions of Basic Science to Biomedical Research

Bldg. 10, Masur Auditorium

2:30 p.m.-5:00 p.m. Plenary Session: *Clinical Applications of Gene Therapy*

Bldg. 10, Masur Auditorium

Poster Session 1

12:00-7:30 p.m. Posters (See poster session listings)

Research Festival tents, Parking Lot 10-D, southwest of Bldg. 10

TUESDAY, SEPT. 21

Symposia

8:30-11:00 a.m. *Transcriptional Control*

Bldg. 10, Masur Auditorium

8:30-11:00 a.m. *Cellular and Functional Imaging*

Bldg. 10, Lipsett Amphitheater

Workshops 1-15

2:30 p.m.-5:00 p.m. See workshop listings for titles and locations

Poster Session 2

12:00-7:30 p.m. Posters (See poster session listings)

Research Festival tents in Parking Lot 10-D, southwest of Bldg. 10

WEDNESDAY, SEPT. 22

Symposia

8:30 a.m.-11:00 a.m. *Signal Transduction and Intracellular Trafficking*

Bldg. 10, Masur Auditorium

8:30 a.m.-11:00 a.m. *Biobehavior and Health*

Bldg. 10, Lipsett Amphitheater

Workshops 16-46

8:30 a.m.-11:00 p.m. Workshop 16-30

See listings for titles and locations

2:30 p.m.-5:00 p.m. Workshop 31-45

See listings for titles and locations

8:30 a.m.-5:00 p.m. Special Workshop 46

Computation and Theoretical Methods for Molecular Medicine

Bldg. 12A

THURSDAY, SEPT. 23 AND FRIDAY, SEPT. 24

Technical Sales Association (TSA) Equipment Show

9:30 a.m.-4:00 p.m. Exhibits

Research Festival tents in Parking Lot 10-D, southwest of Bldg. 10

Programs with complete listing of symposia, posters and workshop titles and locations will be available at the Visitor Information Center in Bldg. 10 and in 31A. Shuttle bus service will be available on a frequent and regular basis throughout the NIH reservation during the festival. Parking spaces in the 41-B lot will be available, but limited in number. Registration is not required for any of the events. For more information call the NIH Visitor Information Center at (301) 496-1776.

News From and About NIHAA Members, and Foreign Chapters

Dr. David Axelrod, who was at NIH in the Laboratory of Biology of Viruses, NIAID, from 1962 to 1965 and then a virologist at NIH from 1965 to 1968, became New York State Commissioner of Health in 1979. He retired in 1991 because of a severe stroke. Friends of his have established an endowment in his honor to support fellowships at the State University of New York, School of Public Health, which he founded. Contributions and information may be referred to the David Axelrod Public Health Endowment, Administration Bldg., Rm. 231, The University of Albany Foundation, 1400 Washington Ave., Albany, N.Y. 12222.

Dr. J. Claude Bennett, who was a research associate in molecular biology at NIH from 1962 to 1964, is Spencer professor of medical sciences and chairman of the department of medicine at the University of Alabama at Birmingham. He received at the 1993 Annual Session of the American

College of Physicians the John Phillips Memorial Award for his distinguished contributions in clinical medicine. Over the past 27 years, he has pioneered many studies in immunology, microbiology and rheumatology that have improved the understanding of the molecular basis of antibody function, the properties of immunoglobulins, gene sequencing and the sequencing of antibodies.

Dr. Baruch S. Blumberg, who was in the geographic medicine and genetics section of NIAMD from 1957 to 1964, is master of Balliol College at Oxford University, England. He was inducted into the National Inventors Hall of Fame this spring, along with Dr. Irving Millman, adjunct professor of microbiology at Hahnemann University, Philadelphia. They were both honored for developing tests and a vaccine to identify and protect humans exposed to the hepatitis B virus.

Michael Brown, who was at NCI from 1972 to 1979, is now a vice president with R.O.W. Sciences, Inc. The company is seeking doctoral level medical research consultants with a record of at least 10 years of research and publication, to support public and private sector research programs for new medical interventions including drugs, devices, and medical technologies. Expertise is needed in clinical trials research, biostatistics, regulatory affairs, medical affairs, epidemiology, outcomes research, and pharmacoeconomics. Please contact Brown at (301) 294-5511.

Virginia Schroeder Burnham, who has been a consultant and member of various advisory councils and committees at NIH, is now a writer and consul-

tant living in Greenwich, Conn. She has written a book on *Knowing Yourself*. The book was written in collaboration with Dr. William H. Hampton.

Dr. George Canellos, chief of medical oncology at the Dana-Farber Cancer Institute, Boston, who was at NCI from 1963-65 as a clinical associate, then from 1967-74 a senior investigator, and from 1974-75 acting clinical director, has assumed the presidency of the American Society of Clinical Oncology.

Dr. Paul Carbone, who was at NCI from 1960 to 1976 in the Division of Cancer Treatment, Medicine Branch, is director of the University of Wisconsin Comprehensive Cancer Center. Recently he was appointed associate dean for program development at the University of Wisconsin Medical School. He also has been named the Virginia Wattawa Bascom professor in cancer research by the Board of Regents. This professorship was established to advance the quality of cancer research and patient care within the medical school by supporting a faculty member.

Dr. Mark Davis, a postdoctoral and staff fellow at NIH from 1980 to 1983, is professor of microbiology and immunology and a Howard Hughes Medical Institute investigator at Stanford University. He was recently elected to the National Academy of Sciences.

Dr. Vincent DeVita, Jr., ninth director of NCI from 1981 to 1988, was named director of the Yale University Comprehensive Cancer Center. He

(Continued on next page)



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leaves Memorial Sloan-Kettering Cancer Center, New York, where he



held the Benno C. Schmidt chair in clinical oncology. He was also professor of medicine at Cornell University and a visiting professor at the Rockefeller Institute.

Dr. Harmon J. Eyre, a clinical associate at NCI from 1968-70, who was chief of the medical service, Veterans Administration Medical Center, Salt Lake, City, Utah, has been selected deputy executive vice president for research and medical affairs of the American Cancer Society. In this newly created position, Eyre, a 20-year ACS volunteer and national president in 1987-88, will oversee the medical and research departments.

Dr. Kenneth Foon, a section head in NCI's Biological Response Modifiers Program from 1981 to 1985, has moved from the Green Cancer Center, Scripps Clinic and Research Foundation, where he was associate director for clinical research, to become director of the University of Kentucky's Lucille Parker Markey Cancer Center and pro-

fessor of medicine, University of Kentucky College of Medicine.

Carl A. Fretts, who was director of the Division of Contracts and Grants at NIH since 1974, retired July 2. He was chief of the NCI Research Contracts Branch from 1972 to 1974, and before that was special assistant for business administration in NCI's treatment division from 1965 to 1970. About retirement: "I don't want to completely leave the contracting field. I would like to keep my hand in it for awhile and do some consulting. But for now, I am going to do some traveling before settling down to work."

Dr. Sara Fuchs reports that the NIH Alumni Association of Israel will sponsor the first Christian B. Anfinsen lecture on Nov. 14, 1993, at the Weizmann Institute of Science. Dr. Ira Pastan, chief of the Laboratory of Molecular Biology, in the Division of Cancer Biology, Diagnosis and Centers, NCI, has been chosen as the first speaker. His talk will be on "Genetically Engineered Toxins: New Agents for Cancer Treatment."

Dr. Howard C. Goodman, who first joined the National Heart Institute in



1953 and then worked in several institutes at NIH, retired as professor emeritus in 1985 after 8 years at Johns Hopkins School of Hygiene and Public Health where he was director, Tropical Medicine Center, and professor, department of immunology, and infectious diseases. In November 1992, he received the Robert Koch Foundation's gold medal for "his promotion of immunological research, particularly in the field of diagnosis of and treatment of tropical diseases." The ceremony was held at the University of Bonn. He wrote that much of the work was done when he was a member of NIH and working at WHO. "I thought NIH should know... enjoy the magazine... keep up the good work."

Dr. Joe R. Held, past president of the NIH Alumni Association and former director of Division of Research Services in 1972-1984, was honored at the first National Center for Research Resources town meeting, which was held on July 23 in Masur Auditorium at the Clinical Center. The 1993 NCRR Distinguished Alumnus Award was presented to him in recognition of his contributions as a manager and director of programs serving both the intramural and extramural NCRR research efforts, and as a spokesperson for the humane use of animals in that research. (DRG and DRS merged to form NCRR.)

Dr. Roy Hertz, NIH scientist emeritus, who came to NIH in 1941, delivered on May 7 a lecture on "Some of NIH's Early Contributions to Women's Medical Problems: Choriocarcinoma, the Pill and Menopause." The lecture also covered Hertz's collaboration with and contributions to Asian scientists at NIH and overseas. Hertz was also very much involved in the Clinical Center 40th anniversary celebration. He is shown cutting the cake with Dr. Saul



Rosen, acting Clinical Center director (above).

Dr. H. Ronald Kaback, a senior investigator at the National Heart Institute from 1964 to 1968, who is a professor at the University of California, Los Angeles and the Howard Hughes Medical Institute, was awarded, with Dr. Peter C. Nowell, the 3M 1993 Life Science Award. The award was given to the pair at the Experimental Biology '93 meeting in New Orleans in March. Kaback was selected because his "contributions during the past three decades have been central to the development of studies of transport and energy transduction in biological membranes at the molecular level." The work from Kaback's laboratory has been setting the pace and style for most of the work done in gradient coupled transport during the past three decades. Following the presentation of the award, he gave a lecture on "Molecular Biology of Membrane Transport: The Ecstasy and the Agony."

Dr. Richard S. Kaplan, formerly clinical associate and senior investigator at NCI in the Division of Cancer

Treatment from 1971-73 and then 1979-81, is now back at NIH as a senior investigator in the Clinical Investigations Branch, NCI, with responsibility for clinical trials in central nervous system and GI tract tumors.

Dr. Thomas E. Malone, former deputy director of NIH and longtime NIH employee, has retired from his latest job as vice president for biomedical research at the American Association of Medical Colleges. He came to the association in 1988 from a position as associate vice chancellor for research at the University of Maryland Graduate School (1986-1988). In his years with AAMC he has directed a broad spectrum of research-related programs and activities including addressing funding, manpower, animal welfare, technology transfer, university-industry relations and scientific integrity, staffing the Advisory Panel on Biomedical Research and tracking the NIH strategic plan. Recently he was elected to the board of directors of NIHAA.

Dr. John Minna, former chief, NCI-Navy Medical Oncology Branch, Division of Cancer Treatment, NCI, is now director of the new Harold C. Simmons Cancer Center at the University of Texas Southwestern Medical Center, Dallas. Recently he received the C. Chester Stock Award at the Memorial Sloan-Kettering Cancer Center's academic convocation. He

was also elected to the board of directors of the American Association for Cancer Research.

William A. Millar II, who worked in the Marine Hospital pharmacy as a resident and a staff pharmacist from 1959-1960, and from 1960-62 as a staff pharmacist at NCI in the PHS hospital in Baltimore, is now CEO/president of PRxN in Ledyard, Conn. PRxN is a managed care network providing employers and groups with comprehensive prescription programs. It is an enterprise owned by the Mashantucket Pequot Indian Tribe in Connecticut. The operation is located at Mashantucket, one of the oldest continuously occupied reservations in the United States.

Dr. Stephen R. Max, who was a guest worker/postdoctoral fellow at NINDS from 1968 to 1970, reports that he is now dean of the graduate school



and vice president for research at Hahnemann University, Philadelphia, as well as professor of biological chemistry and neurology.

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Dr. Robert K. Oldham, who was director of the Biological Response Modifiers Program and associate director in the Division of Cancer Treatment, NCI, from 1980 to 1984, is director of the Biological Therapy Institute in Franklin, Tenn. Recently he wrote a book on *BioEthics Opportunities, Risks and Ethics: The Privatization of Cancer Research*.

Dr. Georges Peters, who was at NIH as a clinical associate from 1966 to 1968, is now in the division of pediatrics/infectious diseases at Rhode Island Hospital, Providence. He writes that he has "just returned from a two-week professional visit on behalf of the U.S. Agency for International Development to two newly founded Central Asian republics, Uzbekistan and Kyrgyzstan, in the former Soviet Union. The visit was to advise those governments on childhood immunizations (remember those diseases we grew up with but our children did not—measles, polio, diphtheria, etc.). This trip was fruitful, albeit challenging, in many respects, particularly my education in

and appreciation of the problems these countries face, not the least of which is child health. The response, to date, of the United States has been gratifying and, I hope, will be mutually beneficial to all concerned."

Dr. Karl Piez, a scientist and chief of the Laboratory of Biochemistry, NIDR, from 1952 to 1982, has returned to the Washington area from Palo Alto where he was vice president for research at Celtrix Pharmaceuticals, Collagen Corp. From 1991 to 1993, he was a scholar-in-residence, FIC. Now he is a professor in the department of biochemistry and molecular biology at Jefferson Medical College, Thomas Jefferson University in Philadelphia. Currently, he is also president of the Foundation for Advanced Education in the Sciences.

Dr. Ellen K. Silbergeld, who was at NINCDS from 1975-81, and NICHD from 1982-84, is now professor at the University of Maryland Medical School and chief toxics scientist, Environmental Defense Fund. She is the recipient of a MacArthur Foundation grant of \$290,000. The prize may be used for

whatever the awardee wishes. "I don't know what I'm going to do with it," said Silbergeld. "I had just come back from an aggravating meeting at the EPA when I got the call. It's kind of overwhelming. My first reaction was, 'This is my daughter'—she's 12, and called me once in a strange voice, telling me I'd won the lottery."

Dr. John H. Tuohy, who was a senior investigator and chief in the solid tumor chemotherapy service for NCI at the Clinical Center from 1953 to 1956, is now a senior consultant in internal medicine at the Armed Forces Hospital, King Abdulaziz airbase, Dhahran, Saudi Arabia and clinical associate professor of medicine, King Faisal University School of Medicine and Medical Sciences, Dammam, Saudi Arabia. In sending in his membership application he wanted it to "affirm my affection for, and loyalty to our alma mater."

Dr. I. Bernard Weinstein, a clinical associate in the metabolism service at NCI from 1957 to 1959, is now director of the Columbia-Presbyterian Cancer Center. It is the new name of the Columbia University Comprehensive Cancer Center. This change reflects "the true diversity of the cancer center and its close working relationships with various units of Columbia University and Presbyterian," he said.

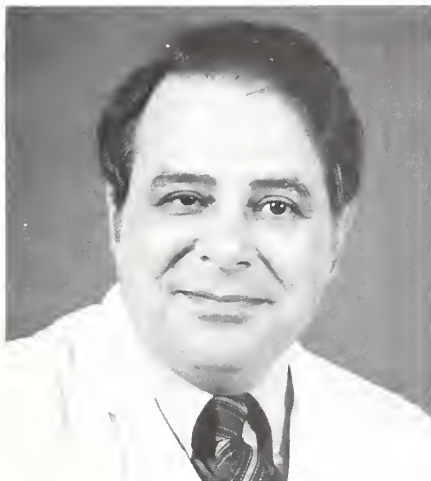
Dr. Samuel Wells, a clinical associate in the Surgery Branch, NCI, 1964-66, is chairman, department of surgery, Washington University School of Medicine. He is a member of the National Cancer Advisory Board and recently became president of the Society of Surgical Oncology. Dr. Donald Morton, an NIHAA alumni member, and medical director of John Wayne Cancer Institute, completed his term as president and is now chairman of the executive council.



Dr. Georges Peters (r) shaking hands with the deputy minister of health, Republic of Uzbekistan, after presenting him with a copy of the American Academy of Pediatrics *Red Book* on Dec. 10, 1992 in Tashkent.

Dr. Nancy S. Wexler, who was a health scientist administrator with NINDS from 1976 to 1983, is professor of clinical neuropsychology in the departments of neurology and psychiatry of the College of Physicians and Surgeons, Columbia University. She is also the president of the Hereditary Disease Foundation. For the Human Genome Lectures, she delivered on May 20 a talk entitled, "Long Day's Journey into Night: The Search for the Huntington's Disease Gene," about the long but recently concluded search for the Huntington's disease gene.

Dr. Peter Wiernik, associate director in the Division of Cancer Treatment from 1966 to 1982, and now at Albert



Einstein Cancer Center, was installed as president of the American Radium Society at its annual meeting in April.

Dr. G. Donald Whedon, former director of NIADDK, has been elected a fellow of the Royal Society of Medicine. Last October at the society in London he attended the celebration of the 25th anniversary of the anglo-american Royal Society of Medicine Foundation, highlighted by a three-day conference entitled, "The impact of molecular medicine on clinical practice."

Attention

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update* at 9101 Old Georgetown Rd., Bethesda, Md. 20814

Name

Home Phone

Home address

News, include dates/position at NIH and photo if possible

Suggestions for newsletter

Suggestions for NIHAA

Science Research Updates in Human Genetics

NINDS Hails Discovery of Gene for Familial ALS

Officials at NINDS hailed the identification of a gene associated with the familial form of ALS (Lou Gehrig's disease). "This discovery is extremely important because it marks the first identification of a specific gene for a neurodegenerative disease of adult life," said Dr. Carl M. Leventhal, director of the NINDS program that contributed to support for the research reported in the Mar. 3 issue of *Nature*. "It also suggests a likely mechanism for the damage to nerve cells in familial ALS and, possibly, other brain disorders."

In the study, Dr. Daniel R. Rosen of Massachusetts General Hospital and a team of international investigators showed that mutations in a gene that codes for the enzyme superoxide dismutase 1 (SOD1) were tightly linked to the occurrence of ALS among 13 families. SOD1 works inside cells to help neutralize the toxic effects of free radicals, which are highly reactive molecules that can trigger destructive chemical chain reactions. Excess levels of free radicals have been suggested as a cause of tissue damage in Parkinson's disease, Alzheimer's disease, trauma, stroke, and other neurological diseases.

"It is intriguing that the gene the scientists have identified plays a vital role in controlling metabolism of free radicals," Leventhal said. "These findings should stimulate additional research to define the role of free radicals in ALS and other brain disorders."

As many as 30,000 Americans suffer from ALS. Most cases of the disease occur sporadically; however, about 5 percent to 10 percent are familial. ALS strikes in midlife and causes degeneration of the nerve cells in the brain and

spinal cord that control voluntary movements. Although patients do not lose sensation or mental alertness, they eventually become physically disabled, have difficulty speaking and swallowing, and may succumb to infections, particularly pneumonia. Death usually occurs in about 5 years. Currently, there is no cure or preventive measure; however, several therapeutic approaches are under investigation.

NINDS Grantees Identify NF2 Gene

Scientists have identified a gene that normally prevents development of tumors and, when damaged, causes an inherited disorder with multiple brain and spinal cord tumors called neurofibromatosis type 2 (NF2). Their results appeared in the Mar. 12 issue of *Cell*.

"Right off the bat, this advance will improve diagnosis for NF2 patients. With further research, it will help scientists uncover the biological basis of this disorder and should lead to the development of specific treatments," said Dr. Philip Sheridan, chief of the Developmental Neurology Branch, NINDS, which partly funded the study. "Furthermore, this discovery offers a valuable clue about the causes of brain and nervous system tumors in the population at large."

Each year, more than 40,000 Americans develop tumors in the brain and spinal cord. NF2, currently treated by managing the tumors as they occur, affects one of every 40,000 children born in the United States.

"Understanding how a faulty NF2 gene leads to excessive cell growth will teach us about the basic biology of tumors in the brain and elsewhere in the body," said NINDS director Dr.

Murray Goldstein. "With such information in hand, scientists may be able to develop new treatments for nervous system tumors, such as drugs to mimic the gene's normal function." The current study was conducted by NINDS grantee Dr. James Gusella at Massachusetts General Hospital, Dr. Roswell Eldridge, now-retired NINDS scientist, and 18 other collaborators.

Scientists Link Fatal Disorder to Chromosome 18

Scientists at NINDS have linked a deadly brain disorder, called Niemann-Pick type C disease, to a small region of human chromosome 18. These findings, reported in the *Proceedings of the National Academy of Sciences*, may eventually lead to improved diagnosis and treatment for the inherited disorder and yield new insight into the metabolism of cholesterol inside the body's cells.

"These findings represent a critical step forward in identifying the faulty gene that causes Niemann-Pick type C disease. Once that is accomplished, we will be poised to develop specific, effective treatment for this devastating disorder," said Dr. Roscoe Brady, chief of NINDS's Developmental and Metabolic Neurology Branch.

About 200 to 300 Americans have Niemann-Pick type C disease, in which faulty metabolism of cholesterol within cells leads to abnormal cholesterol buildup in the brain, liver, and spleen. Affected children typically develop normally until school age, then begin to regress. The first symptoms of the disease can be subtle, such as declining performance in school, but as the disease progresses, brain damage worsens, causing progressive dementia and motor problems, including difficulty with walking, talking, and swallowing.

Most patients die before they reach the age of 20.

"I have high hopes that identifying the disease gene for Niemann-Pick C will help us learn more about how cholesterol is processed inside cells of the brain and other organs," said Dr. Peter G. Pentchev, an NINDS biochemist who has been conducting Niemann-Pick C research for more than a decade. "This information, in turn, could offer vital insights into how this process goes awry not only in this disorder, but also in such common killers as heart disease and stroke."

In the current study, a collaborative team including scientists at NIMH analyzed DNA samples from 12 affected families and identified a small region on chromosome 18 most likely to house the recessive disease gene. "We've drastically reduced the size of the hunt for this gene," Pentchev said. "The region we've identified covers less than 3 percent of chromosome 18, and with a little luck, we should identify the precise gene soon."

Scientists will then be ready to determine the corresponding protein defect and to devise new treatments, including drugs designed to intervene in the disease process and protein or gene replacement therapy, Brady added.

ALD Gene Probably Found NICHD Grantees Report

NICHD has announced that institute-supported scientists have located the gene that codes for adrenoleukodystrophy (ALD), a genetic disease characterized by progressive deterioration of cells in the central nervous system. This highly significant finding may eventually pave the way for an intensive effort to test the possibility of gene therapy for ALD.

"By locating the gene most likely responsible for ALD, science has achieved a major step forward in its efforts to understand this debilitating disease," said Dr. Duane Alexander, NICHD director. "This finding offers hope to all those who suffer from ALD, as well as their families."

ALD is an X-linked genetic disorder that is passed on by females, but affects only males. The disease is relatively rare, affecting approximately one out of every 20,000 males. It causes the breakdown of a fatty substance, known as myelin, that forms an insulating barrier around nerve fibers.

The basic mechanism underlying ALD involves a defective gene located on the X chromosome, which ultimately leads to an excess of very long-chain fatty acids (VLCFA). Normally, VLCFA are metabolically broken down in peroxisomes, which are enzyme-containing cell structures that produce and break down hydrogen peroxide. In people with ALD, however, this process is impaired, resulting in excessive amounts of VLCFA. This build up damages the myelin in a process known as demyelination, which occurs when the myelin sheath surrounding nerve cells is progressively destroyed. In addition, ALD results in progressive mental deterioration, blindness, and adrenal atrophy. This is the disease in its most severe form, however, which occurs when onset is early in childhood. In adults, ALD may cause milder symptoms.

The disease was recently brought to public attention with the release of the movie *Lorenzo's Oil*, a dramatic account of one family's search for a cure for their son suffering from ALD. Lorenzo's oil, a mixture of glyceryl trioleate and glyceryl trierucate oils, normalizes the levels of VLCFA in plasma. While it may be beneficial to cer-

tain patients with ALD, the oil does not seem to ameliorate more severe forms of the disease, and is not a cure for ALD.

In this study, investigators used a technique known as positional cloning to identify a gene that was partially deleted in six out of 85 patients with ALD. In the normal population, no deletions in this gene are found. Although investigators originally suspected that the gene would code for an enzyme, known as VLCFA CoA, that for some time has been thought to be implicated in ALD, it actually codes for a different kind of protein. This protein is one of a family of proteins (ATP-binding proteins) that transport molecules, including proteins, across cell membranes. The abnormal protein underlying cystic fibrosis, which is not related to ALD, is part of this protein family.

With the discovery of the gene most likely responsible for ALD, research in this area has taken a giant stride forward. If indeed this is the correct gene—and investigators are virtually certain that it is—a number of avenues have suddenly opened up, according to NICHD grantee Dr. Hugo Moser, director of the Kennedy Krieger Institute's Center for Research on Mental Retardation and Related Aspects of Human Development, and one of the study's coauthors.

First, knowing the location of the gene will enable doctors to identify individuals who have the gene, either in the carrier or active states. Currently, tests used to identify ALD carriers are not 100 percent accurate. Second, with further study it will enable scientists to understand how the biochemical abnormality leads to the neurological deficit.

"One of the very great puzzles is that only half of the patients with the bio-

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chemical deficit get the severe disease, and the other half do not," Moser explained. "Identifying the gene will permit us to understand how the disease process comes about."

Ultimately, the finding may lead to gene therapy for ALD. The investigators now are trying to develop a transgenic animal model, which is a normal animal into which a defective gene has been introduced. If successful, such a model would hold enormous promise for efforts to develop an effective gene or alternative therapy such as drug treatment.

The immediate next step is to obtain proof that this is the correct gene by adding it to cells in culture that lack it to see if the biochemical defect present in ALD is corrected.

New Study Finds Genetic Link to Homosexuality

A new study has found a correlation between a specific region of the X chromosome and male homosexuality. The finding represents new evidence that sexual orientation may be influenced by heredity.

The study conducted by NIH scientists titled "A Linkage Between DNA Markers on the X Chromosome and Male Sexual Orientation" was reported in the July 16 issue of *Science*. The authors are Dr. Dean H. Hamer, Stella Hu, Dr. Victoria L. Magnuson, Dr. Nan Hu, and Dr. Angela M.L. Pattatucci.

By analyzing the inheritance of genetic markers in pairs of homosexual brothers, the scientists localized the region related to sexual orientation to a minute segment of the human genome. However, a specific gene has not yet been isolated.

Hamer, chief author of the study,

said, "The region that we've discovered represents a significant variation in the human genetic repertoire. If the gene itself can be isolated, then it will be important to understand how it interacts with other genes, the brain, and the environment to influence a trait as complex and variable as human sexuality."

Hamer is with NCI and conducted the study as part of the institute's effort to identify genetic factors involved in cancers that are frequently found in gay men infected with the AIDS virus.

Hamer and colleagues studied the family histories of 114 gay men and found that their brothers, maternal uncles, and maternal male cousins were more likely to be homosexual than would be expected among the general male population. In some families, gay relatives could be traced back for three generations. Because the homosexual uncles and male cousins of the gay subjects were raised in different households, the scientists hypothesized that a

genetic factor was involved. Furthermore, the maternal link suggested that homosexuality might be associated with the X chromosome, which is the sex-linked chromosome that men inherit only from their mothers.

Explicit evidence for a genetic link was obtained by studying the X chromosome DNA of 40 pairs of gay brothers. The scientists used a technique called linkage mapping to search for patterns of similarity in the genetic information of related individuals. Thirty-three of the gay sibling pairs had coinherited genetic markers in the same chromosome region called Xq28, suggesting that 65 percent of the families studied were transmitting a gene for homosexual orientation.

"The statistical significance of the results was better than 99 percent, which means that the possibility of obtaining our findings by chance is extremely unlikely," said Hamer. However, he noted that replication on



Dr. Dean H. Hamer

an independent population of families will be necessary to confirm the results.

The scientists do not know why seven of the 40 pairs of gay brothers did not coinherit the Xq28 genetic marker. Hamer postulated that these gay men may have inherited other genes that are associated with homosexuality, or they might have been influenced by environmental factors or life experiences.

"Given the intricacies of human behavior, it is not surprising that a single genetic locus [region] fails to account for all of the variation seen in the study group," said Hamer. "What is remarkable is that we can account for at least some of the inherited variability with a fair degree of statistical confidence."

The scientists are also studying the families of lesbians. Preliminary results suggest that female sexual orientation is genetically influenced, but DNA markers have not been detected yet.

Hamer emphasized that the study was not designed to test for sexual orientation. The findings do not permit determination of an individual's sexual orientation, he pointed out, because the complexities of sexuality cannot be fully explained by a gene or genes.

"As efforts to map the human genome progress, there will be increasing concern about how the information is used. Scientists, educators, policy makers and the public should work together to ensure that behavioral genetics research is used to benefit all members of society and not to discriminate," said Hamer.

This material was compiled from various institute information articles.

Scholars (continued from p. 1)

from all over the world to NIH in order to conduct "advanced studies" in the health sciences. The center was also designated to administer international fellowship programs already in existence and to take over certain international responsibilities from the Office of International Research (OIR), which had been part of the NIH director's office. The scholars program was seen as a new central focus of the FIC programs.

Prior to institution of the program there was much discussion about the meaning of advanced study; whether or not the program should have an extramural component; should the program be devoted to particular problems and how the scholars should relate to NIH staff. The need for such a program was strongly felt by the leaders of NIH and by then assistant secretary for health of HEW, Dr. Philip Lee. Dr. James A. Shannon, then NIH director, supported formation of the program and left it to FIC director, Dr. Milo D. Leavitt, to work out the details.

A decision was reached that the program should begin as an "intramural" operation and that the scholars should primarily work at NIH in order to ensure that they would have an organized base of operations within an operating scientific community in which most important fields of research were well represented.

Dr. James Haggerty, chief of the program, began discussions in 1968 with the scientific directors as to how scholars should be selected. The scientific community at NIH was canvassed for nominations. These were reviewed by an internal group within the FIC and then submitted to an informal advisory committee of intramural scientists to be ranked in order of excellence. Thus a pool of approved nominees was established from which the FIC director

selected individuals to be invited. Sufficient funds were available in the first budget for seven invitations to be issued. The first scholar, nominated by Dr. Marshall Nirenberg in the fall of 1969, was Dr. Uriel Littauer, from the Weizmann Institute of Science in Israel. He was followed by Drs. Manabu Sasa (Japan), John Edsall (USA), Jeffries Wyman (USA), Isaac Berenblum (Israel), Torsten Teorell (Sweden), Daniel Bovet (Italy), Ragnar Granit (Sweden), Frank Fenner (Australia) and Percy Garnham (UK), to name a few of the early participants in the program.

From the beginning the program has been closely associated with the intramural programs of the institutes and divisions of NIH. All the early scholars were nominated by NIH staff and were associated with laboratories on campus where they were treated as members of their nominator's laboratory although they had studies and living quarters in the Stone House.

Today the Fogarty International Center has been authorized by Congress as a component of NIH with a chartered advisory council to assist the director, Dr. Philip Schambra, in setting the course of FIC activities. The scholars program has maintained the form established early in its existence as the principal link between FIC and the working community of scientists on campus. The scholars are selected by the FIC director with the assistance of an informal review committee of intramural scientists at NIH. This committee reviews nominations solicited from the NIH scientific staff and former scholars. All nominees must have a sponsor from the intramural scientific community who acts as campus host. In practice, nominations often have multiple sponsorship from more than one institute. The committee judges the nominations by reviewing a candi-

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date's contributions to scientific knowledge, letters of recommendation from people familiar with the nominees and the relevance of their research to the mission of NIH and its constituent institutes and research divisions. At the review, the nominations are ranked on the same scale used for ranking research grants and fellowship applications. The FIC advisory board provides the director with advice concerning relevance to FIC programs and aims. Invitations are used by the FIC director based upon the rankings of the review committee, the availability of funds and space available in the Lawton Chiles House. If needed, arrangements for laboratory space are made by the sponsor. At the present time funds are available for the appointment of 8 new scholars a year. Appointments are for 1 year but may be broken into shorter terms of at least 3 months.

Over the past 25 years the scholars have become the principal link between the FIC and the working community of scientists at NIH. Their publications, usually written in collaboration with members of the intramural staff, reflect the intimate interaction between the scholar, the nominator and members of the host laboratory. In many cases their collaborative research extends to several laboratories in different institutes. Many seminars, lectures and conferences have been engendered by the presence of the scholars at NIH. The results of the program can be summed up as follows:

- Interaction with the staff of NIH resulting often in changes in the research program of individual investigators.
- Change in the direction of scholar's research activities as a result of learning and experience gained during tenure of the award.

•Generation of ideas for the FIC in its approach to international health problems.

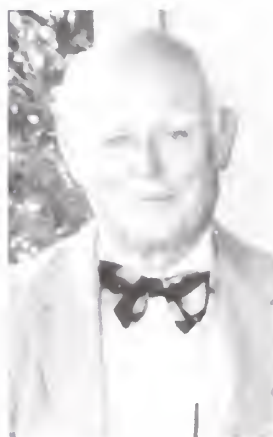
•Generation of conferences, workshops and other interactions between the NIH staff and extramural scientists.

•Interaction between the scholars themselves resulting in collaborative relationships during their tenure and in the post-scholarship period.

•Continuing collaboration between the scholar and NIH scientist after completion of the award.

•Changes in the scholar's activities in his home laboratory's research.

Almost 200 scholarships have been awarded to men and women from 28 countries. In the early years of the program it was difficult to arrange awards to scientists from the Eastern bloc, but since the end of the Cold War a number of appointments have been made to individuals from behind the former Iron Curtain. While the majority of awards have been made to scientists from the developed countries of Western Europe, Japan, Israel and Australia, awards have also been made to scientists from Latin America, India, China and Africa. A substantial number of Americans have also participated in the program. Thus, at any given time, the mix of scholars present on campus is thoroughly international in character.



Dr. Condiliffe is now scientist emeritus in the Laboratory of Cellular and Developmental Biology, NIDDK. From 1975 to 1988, he was chief of the Scholars-in-Residence Program, FIC.

The International Institutes of Health?

Just how international is the NIH?

More than one-third of all intramural scientists on the NIH campus are from other countries—about 1,600 to 1,800



at any given time. They come to NIH under the Visiting Program, and are hired directly by the individual ICDs.

"We might quite accurately be called the International Institutes of Health," remarked Dr. Philip E. Schambra, FIC director, "because scientists from about 80 nations are working in laboratories all over the campus."

The Fogarty Center coordinates with ICDs sponsoring foreign researchers and provides management and administrative support for the scientists and their families.

The largest foreign contingent is from Japan; as of June 1993, 323 Japanese scientists were conducting research at NIH. China was next in size of representation at NIH with 307. Italy, with 170, had the third largest foreign representation on campus. Many of the foreign scientists receive their salaries and laboratory expenses from their own governments; the others receive salaries from NIH institutes.

Why do so many people from so many lands come to NIH? "People from all over the world want to broaden their research knowledge, and many come here because of NIH's reputation as the world's leading biomedical research institution," Schambra explained. "NIH also benefits from the foreign scientists' own unique approaches to research. Often, collaboration begun while at NIH continues for the rest of the foreign scientists' careers."

"Thank you NIH"

Reminiscences of a Fogarty Scholar-in-Residence (1987 to 1989)

By Dr. Herbert Gutfreund

The award of a Fogarty scholarship is an honor, which is accompanied by remarkably few responsibilities. The candidate is proposed, assessed and then offered 12 months of hospitality at one of the world's finest institutions for biomedical research. When I was invited to come to NIH as a Fogarty scholar-in-residence I gave some thought to the best way to use this opportunity. The title "scholar" conjured up ideas in my mind. I remembered my own interpretation of the distinction between scholarship and research, drawn in a letter to British universities by a senior academic administrator. Scholarship is using existing knowledge for a synthesis and appraisal, while research is the acquisition of new knowledge. The latter is not restricted to new facts, it clearly also includes the explanation of facts.

When Mary and I arrived in Bethesda in January 1987, with two severe snow storms imminent, I already knew the area and NIH campus well. My wife was also familiar with the North American way of life and soon got involved in an interesting research project with deaf children at Gallaudet University. We had great advantages over some of my fellow scholars who had a cultural shock, no U.S. money and wives who had language difficulties. Although the delightful small house we rented turned out not to be entirely weatherproof, we settled in quickly.

I soon found out that different scholars used their time in Bethesda in different ways. The two extremes are



Dr. Gutfreund, emeritus professor of physical biochemistry, University of Bristol School of Medical Sciences, Bristol, UK, is shown in a recent photo at the C & O canal on the Maryland side of Great Falls park.

those who spend all their time in their office in the Stone House, with visits to the library, and others who are hardly ever seen there except to collect their mail. The latter could just as well have come under the visiting scientist scheme to do a specific piece of collaborative laboratory research.

I grew up in the very gregarious atmosphere of academic life in Cambridge during the postwar years. Although I managed without this at various times since, the elegant surroundings of Stone House made me feel that some effort should be made towards its use as an intellectual center. Peter Condliffe, who was head of the scholars program at the time, had all the social and intellectual attributes of a "head of a small Oxbridge house." This was only marginally successful since he did not have the final word in the selection of scholars. It was diffi-

cult to persuade some of the most interesting scholars to come to discussions at lunch time or in the late afternoon because they were too busy in the laboratory. Even the "regular" dinners became very "irregular."

I was originally asked by the head of a section whether I wanted to spend some time in Bethesda to collaborate with him on a project close to both our hearts. It was for this venture that he proposed me to the Fogarty International Center for a scholarship. By the time I was offered the scholarship both my host and I had different and divergent interests. This confirms the conclusion that Fogarty scholars should not be chosen for too specific a reason, and that assured success of the time spent at NIH depends on the scholars having wide interests.

I was in the fortunate position that

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my first visit to NIH in April 1952 was followed by many pleasant occasions and I have made friends here. It was my intention to use my periods on the campus only partly in the laboratory contributing to experiments with my expertise and benefiting from that of others. I also knew that I would be able to sharpen my wits through discussions with the many physical biochemists distributed among the different institutes. I hoped to lay the foundations to a book on "Kinetic Treatment of Biological Problems."

In spite of the change in our immediate interests I did spend some time in the laboratory of my original host to help set up some new equipment, which was subsequently used by a number of groups. However, my program for laboratory work was directed by the emergence of another kinetic problem. A number of papers had recently appeared in the literature in which some organization was attributed to systems of enzymes, which had previously been thought to work independently in free solution. This phenomenon, substrate channelling, is supposed to involve the direct passing on of the product of one enzyme reaction to the next enzyme in the metabolic sequence by protein-protein interaction. This was postulated for the glycolytic enzyme system in muscle, where enzyme and substrate concentrations are very high and of near equal magnitude. The testing of this attractive hypothesis was a challenging kinetic problem. Its complexity clearly had not been understood by some of its proponents. I was fortunate to be able to obtain the collaboration of Boon Chock, who has a closely similar background to myself, with experience in a wide range of approaches to the solution of kinetic problems. Thanks to this and to the hospitality extended to

me by Earl Stadtman in the Laboratory of Biochemistry, NHLBI, in Bldg. 3, two papers were published in the *Proceedings of the National Academy of Sciences* and one in *Biochemistry* dealing with some of the complex kinetic problems of coupled enzyme reactions.

I suppose I spent more than half my time in my office at the Stone House and, believe it or not, during the tenure of my scholarship (January-June 1987; October-December 1988; April-June 1989) I wrote several chapters of my book by hand! It was not until I had the hospitality of the Stone House (thanks to Peter Condliffe's successor, Jack Schmidt, and his staff) for a self-financed visit in January 1991 that I made use of the word processing facility in the office loaned to me. Until then computers were, to me, super programmable calculators. My mainly physico-chemical interests took me to many seminars and discussions in Bldg. 2, which is really my spiritual home at NIH and I am envious of their technical and intellectual facilities. I learned a lot, especially from Bill Eaton's group.

Another fine feature of the scholars program is the organization of symposia by the members. I attended what may have been the first one in 1971 organized by John Edsall and Jeffries Wyman, and I was fortunate enough to have been invited to several others. In the fall of 1989 I arranged one myself in collaboration with Boon Chock. I think this is one way in which scholars contribute something to NIH by bringing new fields to the attention of the staff. While there are so many seminars on campus that one might think that people don't have time to attend any more lectures, the symposia seem to be well attended and appreciated.

My time as scholar-in-residence was an important and enjoyable experience: THANK YOU NIH.

Stone House—NIH's International Symbol

A symbol of NIH's commitment to international activities—and the Fogarty Center's most visible physical presence—is the elegant stone mansion atop the hill on main campus between the Bldg. 1 complex and the National Library of Medicine. Known since the 1940's simply as "Stone House," Bldg. 16 was recently named the "Lawton Chiles International House" for the former U.S. senator and current Florida governor.

Stone House is the home of the Scholars-in-Residence Program of the FIC, in which eminent scientists, mostly foreign, are invited to the NIH campus to interact with the NIH scientific community and conduct studies of international interest and importance to contemporary biomedicine.

The building is also the site of numerous receptions and small conferences. It is used for international intramural activities, and has been a favorite reception site for HHS secretaries and the U.S. surgeons general.

The building is a classic example of the early 20th century estates that once lined Rockville Pike between Bethesda and Rockville. Designed in Colonial Revival style, it sits on a hill with four two-story Corinthian columns facing to the east, though it is approached from the west.

Built of locally quarried bluestone, the structure was constructed in 1930 at a cost of approximately \$133,500 by the Rev. George Freeland Peter, canon of the Washington Cathedral. The residence's designer, Walter G. Peter, was a noted Washington architect and Canon Peter's brother.

Prominent for generations in Georgetown business and political affairs, the Peter family had owned

land in the vicinity of what is now NIH since about 1760. In 1836, Dr. Armistead Peter built a summer home called Winona on the site of what is now the National Library of Medicine. The house stood until at least 1919. Dr. Armistead Peter was the head of the smallpox hospital during the Civil War. On his death in 1902, his 200-acre estate was divided among his five children, including 47.9 acres for son George Freeland Peter. On this site, Canon Peter's home, also called Winona, was built, and there the Peter family lived until after World War II ended and NIH began expanding. The

level are an elegant drawing room with grand piano and a large dining room. Throughout the building are crystal chandeliers and fireplaces.

Leading from the main to the second level is a freestanding, elliptical stairway with a mahogany railing.

Originally, the second floor contained seven bedrooms with individual bathrooms, a maid's room, morning room, sitting room and sewing room. The third floor was used for storage. The second and third floors are now used as offices for the scholars-in-residence, a seminar room, Dr. Jack R. Schmidt, the chief of the scholars program and his staff, and Rita Singer, the building's manager.

The scholars lived in second floor suites from 1970 to 1978, when the program was expanded and the house ceased to be a common residence.

The building is surrounded by elegant landscaping, which includes a rose garden enclosed by American holly hedges extending from the south wing porch. Adjacent to the garden is a Buddhist memorial stupa that was presented to NIH by Japan as a symbol of longstanding U.S.-Japanese collaboration in biomedical science.

Next door is Bldg. 16A, called "the Cottage," which originally was living quarters for the Peter family staff; its lower level was a garage for Canon Peter's automobiles. The Cottage now houses the Fogarty Center's International Services and Communications Branch, which serves the foreign scientists at NIH and their families.



Peter estate was acquired by the U.S. Government on Feb. 14, 1949, for \$505,000, and the building became known simply as Stone House.

Originally, partitions were used to divide the building's rooms for conference and office space. In the late 1960's, however, the interior was restored to its present appearance.

The structure contains 17,476 square feet of space on three levels. On the main floor, the former living room extends the length of the south wing, with double French doors opening onto a spacious veranda and formal walled garden. Today that room is used for conferences, meetings and seminars of up to 75 persons. Also on the main

AIDS Conference To be Held at NIH In October

The AIDS history group of the American Association for the History of Medicine has organized a conference titled "AIDS and the Public Debate: Epidemics and Their Unforeseen Consequences" on Oct. 28-29, 1993 at NIH. Dr. C. Everett Koop, former surgeon general, U.S. Public Health Service, will provide the keynote address on "The Early Days of AIDS as I Remember Them." Dr. Anthony S. Fauci, NIAID director, will close the conference with "AIDS: Reflections on the Past and Considerations for the Future."

Further information about the program, registration and accommodations is available. To receive this mailing, send your name and mailing address to:
AIDS and the Public Debate
Conference

c/o NIH Historical Office
Bldg. 31 Rm. 2B09
National Institutes of Health
Bethesda, MD 20892

If you wish to use e-mail, send a note with your name and address to vh2@nihcu.BITNET.

Other speakers will include Virginia Berridge, Allan M. Brandt, Daniel Bross, James W. Curran, R. Gordon Douglas, Jr., Paul Farmer, Victoria A. Harden, Ruth Kulstad, Maryinez Lyons, Anne Marie Moulin, June E. Osborn, Mark Smith, and James Harvey Young.

Investment For Humanity

Editor's Note: On June 30, 1993, Dr. Bernadine Healy resigned as NIH director and returned to the Cleveland Clinic Foundation. One of her great areas of interest was the development of a strategic plan for NIH. Here is the preface she wrote for "Investment for Humanity: A Strategic Vision for the National Institutes of Health."

"...to intervene, even briefly, between our fellow creatures and their suffering or death, is our most authentic answer to the question of our humanity."

Howard Sackler, American playwright



The National Institutes of Health was established more than a century ago to improve and safeguard the health of every American. Today, NIH continues to pursue science for the sake of each man, woman, and child in the United States, reflecting the central tenet of our democratic society: the belief in the value and sanctity of the individual. Science for the sake of the citizen is an idea that has grown up with America. Thus, it is no accident that the United States, the world's greatest democracy, has created the world's greatest biomedical research establishment, dedicated to serving not the state, but the individuals who make up the state

NIH's intellectual capital base and scientific resources are devoted to addressing the most challenging, urgent public health and biomedical questions of our time. The growing complexity of these challenges—ranging from reducing the suffering from heart disease and cancer to finding a cure for AIDS—coupled with the urgent need to manage prudently the U.S. taxpayers' \$10 billion investment in NIH, requires that we think very carefully about our future.

That is precisely what occurred as we embarked upon our strategic planning effort. The leadership of NIH along with some 2,000 representatives of the scientific community—from our intramural community and from NIH-sup-

ported institutions nationwide—participate in this process. The plan is a vision, not a blueprint; it is a framework, not a manual of operations; it is a beginning, not an end. It defines an NIH flexible enough to respond to society's changing health care needs and dynamic enough to open ever more promising frontiers of fundamental research. Although a new undertaking for NIH, the Strategic Plan does not sever ties with the past. Rather, it builds on past accomplishments, organizational strengths, and approaches of proven value. This document also affirms our commitment to the individuals who are the NIH: they are the source of our creative advances, primarily through their insights, initiatives, and individual talent.

Investment for Humanity is predicated upon the need to create an environment that promotes creativity on the part of individual scientists. The pursuit of research opportunities that are closely aligned with our Nation's health goals and our citizens' individual needs is also central to our plan. By focusing NIH's organizational thinking, the Strategic Plan articulates how our community defines its priorities for investment.

The Strategic Plan starts with our statement of mission—*science in pursuit of knowledge to improve human health*. All that follows derives from

and relates to that central guiding mission. Woven throughout this plan is a firm recognition of 1) a commitment to basic and clinical research as the means of expanding our knowledge base; 2) the importance of nurturing and sustaining a robust and varied human capital base; and 3) the need for sophisticated infrastructure to accomplish both. Although the specific initiatives may change as science and the needs of society change, NIH's fundamental mission and purpose will remain immutable

The benefits of that investment extend also to our Nation's economy. The biotechnology, bioengineering, and pharmaceutical industries (and related life-science-based corporations) are increasingly important to improving the Nation's economy—creating new jobs, technologies, products, and services. In many regions of the country, biomedical science is a great catalyst for the creation of skilled, high-level jobs and is responsible for considerable economic productivity. NIH is the engine that drives this emerging "bioeconomy:" an economy that will lead to better health, lower health care costs, and sustained economic growth. The NIH Strategic Plan will help ensure that our Nation remains at the forefront of the burgeoning economy.

Investment for Humanity pledges the NIH community to address the opportunities, challenges, and needs for the future with vigor, dedication, and integrity. In turn, it also calls for a reciprocal commitment from this Nation's citizens and their elected representatives, not only to sustain, but also to enhance the strength and vitality of this unique institution—this republic of science—they have created and nurtured over many years. For NIH to fulfill its mission of pursuing science for the sake of each citizen, our vital enterprise must be a national priority.

NIH Notes — February 1993 to July 1993

AWARDS AND HONORS

Dr. Seymour Benzer, an NIGMS grantee and the James G. Roswell professor of neuroscience at the California Institute of Technology, was recently awarded the Crafoord Prize for his work on genetic mutations that affect fruit fly behavior. He will share the \$338,000 award with a British scientist who is also studying behavioral genetics. The winners are chosen by the Swedish Academy of Sciences, which also selects the winners of Nobel Prizes in science ... **Dr. Jay A. Berzofsky**, chief of the molecular immunogenetics and vaccine research section, Metabolism Branch, Division of Cancer Biology, Diagnosis, and Centers, NCI, has been elected president of the American Society for Clinical Investigation ... **Dr. Roscoe O. Brady**, chief of NINDS's Developmental and Metabolic Neurology Branch, recently received the 1992 Warren Alpert Foundation Prize for his 30 years of groundbreaking research in the area of lipid storage disorders. He has defined much of what is known of the biochemistry of this group of disorders and has stimulated investigation across the field of biomedical research ... **Dr. Samuel Broder**, NCI director, was elected to the National Academy of Sciences' Institute of Medicine ... **Dr. Bernard Brooks**, head of DCRT's molecular graphics and simulation section, was honored recently as the guest speaker at Howard University's 27th annual Percy L. Julian Memorial Lecture. Following his talk, "Molecular Dynamics for Problems in Structural Biology," he was presented with a special commemorative plaque by Howard's chapter of the Sigma Xi Research Society, which sponsored the lecture ... **Dr. Deborah Carper**, a biologist with the cataract section of NEI's Laboratory of Mechanism of Ocular Disease, recently received the Alcon Award for outstanding contributions to vision research. The work for which she received the Alcon award is titled the "Role of the Polyol Pathway in Diabetic Complications" ... **Dr. Robert Chapin**, a toxicologist in the reproductive toxicology group at NIEHS, has been selected as the Young Andrologist of the Year for 1993 by the American Society of Andrology. He was honored for his

research to define the sites and mechanism of action of toxicants that alter the male reproductive system, especially the testes ... **Dr. Giovanni Cizza** of the Developmental Endocrinology Branch, NICHD, has received two awards—the 1992 AGS/Merck Sharp & Dohme New Investigator Award from the American Geriatric Society scientific programs committee, and the Henry Christian Award from the American Federation for Clinical Research. Both awards were given to him for his work in aging research ... **Dr. Francis S. Collins**, newly named director of the National Center for Human Genome Research, has been elected to the National Academy of Sciences ... **Dr. Jacqueline N. Crawley**, chief of the unit on behavioral neuropharmacology within NIMH's Experimental Therapeutics Branch, delivered on May 4 the 20th Mathilde Solowey Lecture Award in the Neurosciences. She presented the results of her research in a lecture titled, "Coexistence of Neuropeptides with 'Classical' Neurotransmitters: Functional Studies Relevant to Neuropsychiatric Disorders" ... **Dr. Anthony S. Fauci**, NIAID director, was the recipient of several honors and awards: he was presented by the American Medical Association its Dr. Nathan Davis Award for Outstanding Public Service, and recently received honorary doctorates from the Medical College of Wisconsin, Bates College in Maine and Bard College in New York. In addition, he presented commencement addresses at the Medical College of Wisconsin, Bard and Stanford University School of Medicine ... **Julie F. Foley** of the Experimental Toxicology Branch, NIEHS, received the Diamond Cover Merit Award for a manuscript published in the *Journal of Histotechnology*. She was the lead author on a paper that not only demonstrated originality but was of widespread interest to the journal's readers ... **Dr. Joseph P. Fraumeni, Jr.**, associate director for epidemiology and biostatistics in NCI's Division of Cancer Etiology, was honored with two awards: he received from the American Society of Preventive Oncology its Distinguished Achievement Award for "his outstanding achievement in cancer prevention and control," and he also was the recipient of the American Association for Cancer Research's newest award, the American Cancer Society Award for Research Excellence in Cancer Epidemiology and Prevention, for "his unstinting dedication to cancer epidemiology which has yielded fun-

damental contributions to our understanding of cancer etiology and prevention" ... **Dr. Lynn Gerber**, chief, Department of Rehabilitation Medicine, Clinical Center, has received the Public Health Service award for exceptional achievement in orphan products development. The award cited her innovative and creative design of braces for children with osteogenesis imperfecta. The devices allow children with brittle bone disease to be more mobile and active ... **Dr. Thomas Glynn**, acting associate director of the Cancer Control Science Program and chief of the Cancer Prevention and Control Extramural Research Branch, recently received the Joseph W. Cullen Memorial Award, which memorializes the former deputy director of the Division of Cancer Prevention and Control and program coordinator for NCI's Smoking Tobacco and Cancer Program from 1982 to 1989, at the annual meeting of the American Society for Preventive Oncology. Glynn has consulted on tobacco issues with a wide variety of international and domestic organizations ... **Dr. Steve Gordon**, chief of the Musculoskeletal Diseases Branch, NIAMS, recently received an award from the American Society for Bone and Mineral Research "in grateful appreciation of his exemplary guidance and service in directing research support in the field of bone and mineral metabolism" ... **Dr. Florence Haseltine**, director of NICHD's Center for Population Research, was elected to the National Academy of Sciences' Institute of Medicine ... **Dr. Anne-Marie Heegaard**, a visiting fellow in the Bone Research Branch at NIDR, is the winner of the Merck Sharp & Dohme Young Investigator Award from the American Society for Bone and Mineral Research. She was honored for an abstract she wrote on biglycan, a protein found in bone, and its possible role in the development of bone abnormalities associated with Turner's and triple-X syndromes ... **Dr. Ada Sue Hinshaw**, director of the National Institute of Nursing Research, recently was named Health Leader of the Year by the Commissioned Officers Association of the U.S. Public Health Service. Established in 1987, the award recognizes individuals who have made notable contributions to the health of the nation. She received the award at the USPHS Professional Association's 28th Annual Meeting in Scottsdale, Ariz., where she presented a talk on "Quality of Life: A Nursing Focus" ... **Dr. Peter M. Howley**, chief of the Laboratory of Tumor

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Virus Biology, NCI, has been elected to the National Academy of Sciences. He left NIH in July to become chairman of pathology at Harvard School of Medicine ... **Dr. Ruth L. Kirschstein**, NIGMS director and acting NIH director, has received from the Federation of American Societies for Experimental Biology its 1993 Public Service Award. Kirschstein, who has directed NIGMS for 19 years, was honored for her "strong leadership in the fields of basic biomedical research, research training and women's health issues," according to FASEB president Dr. Shu Chien. He described her leadership during her 38-year federal career as both a scientist and an administrator as "effective, intelligent and compassionate" ... **Dr. Richard D. Klausner**, chief of the Cell Biology and Metabolism Branch, NICHD, and assistant clinical professor of medicine, USUHS, was elected to the National Academy of Sciences ... **Dr. Claude B. Klee**, chief of NCI's Laboratory of Biochemistry in the Division of Cancer Biology, Diagnosis, and Centers, delivered the NIH Lecture on June 28. She reviewed research on calcium-regulated reactions. She has made intriguing discoveries about calcium-regulated cellular processes that have yielded important new insights into the mechanisms of cellular communication ... **Dr. Hynda Kleinman**, chief of the cell biology section in NIDR's Laboratory of Developmental Biology, is the 1993 winner of the WISE Award for Scientific Achievement. She was honored for "being the most outstanding woman scientist in the federal government." She has been at the forefront of research on the structure and function of basement membranes—the extracellular matrices that surround all blood vessels, glands, muscles, and nerves. She and coworkers developed and patented a basement membrane extract called Matrigel, which is now widely used to culture tissues that were previously difficult or impossible to grow in the laboratory ... **Dr. Patricia A. Kruk**, visiting fellow in NIA's Laboratory of Molecular Genetics at the Gerontology Research Center, is the winner of the 1992-1993 Outstanding Dissertation Award from the American Association of Anatomists. She won for her dissertation entitled, "Human Ovarian Surface Epithelial Cells in Culture: Characterization and Matrix Interrelationships" ... **Dr. Claude Lenfant**, NHLBI director, received the Federal executive of the Year Award for 1992 from the Federal Executive

Institute Alumni Association. He was cited "for extraordinary achievement in executive management and personal leadership resulting in distinguished achievements in public service" ... **Dr. David J. Lim**, director of the division of intramural research, NIDCD, recently received the 1992 Shambaugh Prize in Cairo, Egypt, from M. Nasser Kotby, president of the Collegium Otorhinolaryngologicum Amicitiae Sacrum. He received the award for his outstanding contributions in auditory neurobiology and otology. The Shambaugh Prize, established in 1949 in honor of the prominent American otolaryngologist George E. Shambaugh, Sr., is awarded once every two years ... **Dr. Douglas R. Lowy** of the Laboratory of Cellular Oncology, NCI, received the Wallace P. Rowe Award for Excellence in Virologic Research. He was cited for "outstanding and innovative contributions to the papillomavirus field, leading to advances in the understanding of the molecular biology of bovine and human papillomaviruses and providing a basis for prevention of infection" ... **Dr. Henry Masur**, chief of the Clinical Center's Critical Care Medicine Department, has been selected for membership in the Association of American Physicians. He also received the 1993 Distinguished Clinical Teacher Award from the NIH clinical associates ... **Dr. Karin D.B. Nelson**, medical officer in the Neuroepidemiology Branch, NINDS, recently received the annual Distinguished Clinical Investigator Award from the American Epilepsy Society and Milken Family Medical Foundation at the society's 4th Annual Research Awards Program. Nelson was recognized for her work, along with Dr. Jonas Ellenberg, chief of the Intramural Biometry and Field Studies Branch, NINDS, and other colleagues, on neonatal febrile and nonfebrile seizure disorders in children ... **Dr. William E. Paul**, chief of the Laboratory of Immunology, NIAID, was elected to membership in the American Academy of Arts and Sciences ... **Dr. Vivian Pinn**, director of NIH's Office of Research on Women's Health, was recently honored by her alma mater, Wellesley College, for outstanding achievement in medicine. A 1962 graduate of the college, she was one of four to receive the Alumnae Achievement Award for 1993 ... **Dr. Judith Rapoport**, chief, Child Psychiatry Branch, NIMH, was elected to the National Academy of Sciences' Institute of Medicine ... **Dr. John Bennett Robbins**,

chief of NICHD's Developmental and Molecular Immunity Branch, was elected to the National Academy of Sciences' Institute of Medicine ... **Dr. Martin Rodbell**, chief of the signal transduction section in NIEHS' Laboratory of Cellular and Molecular Pharmacology, was elected to membership in the American Academy of Arts and Sciences. He also recently received an honorary doctorate degree from the Université de Montpellier in Montpellier Cedex, France. He was honored, at the university's 700th anniversary celebration, for his continuing contributions to the advancement of biomedical research in the area of receptor mechanism, and his discoveries of the role of GTP-binding proteins, termed transducers, in mediating the actions on cell surface receptors of light, hormones, and a variety of other chemical signals ... **Dr. Anne Sassaman**, director of the Division of Extramural Research and Training, NIEHS, who graduated from Auburn University with a B.S. degree in chemistry in 1965 with highest honors—the outstanding graduate in the School of Chemistry—and recipient of the University President's Award, has been honored as a distinguished alumna of the school ... **Dr. Michael B. Sporn**, chief of the Laboratory of Chemoprevention, NCI, was selected by the University of Chicago Cancer Research Center as the 1993 Simon M. Shubitz Cancer Lecturer. The lectureship "rewards excellence in cancer research" with a cash prize and a bronze medal ... **Dr. George F. Vande Woude**, director of NCI's ABL-Basic Research Program at the Frederick Cancer Research and Development Center, was elected to the National Academy of Sciences ... **Dr. Nadarajan A. Vydelingum** of the Division of Research Grants' special review section was honored recently as the guest speaker at St. Peter's College in New Jersey. He delivered the 42nd Mendel Lecture entitled "Cancer Cachexia: The Depletion of Stored Fat" ... **Gladys Whitted**, an NIH small and disadvantaged business utilization specialist, was recently honored by the National Federation of Black Women Business Owners at its first annual Negro History Month Black Women Business Awards luncheon. Honoring women who "have achieved a level of independent economic success manifested through the owner of a business or who have proven to be a great asset to our community," she was recognized for her "excellent performance" in her position at NIH.

APPOINTMENTS AND PERSONNEL CHANGES

Dr. William Blattner has been named chief of the Viral Epidemiology Branch in the Epidemiology and Biostatistics Program, which is part of NCI's Division of Cancer Etiology. This branch was formed out of the viral epidemiology and the family studies sections of the Environmental Epidemiology Branch. It will continue its focus on human retroviruses, HTLV and HIV, and expand where appropriate into a number of other areas ... **Dr. Geoffrey P. Cheung** recently joined NCCR as a program officer for the General Clinical Research Centers Programs. He is responsible for the administration of a portfolio of GCRC grants ... **Margarite Curtis-Farrell** has been named the EEO officer for the Division of Research Grants. Previously, she served as EEO specialist. Before joining the EEO office, she was a personnel management specialist for the division ... **Dr. Gary Ellis** has been named director of the NIH Office for Protection from Research Risks, which oversees programs to protect humans and animals involved in research ... **Dr. Elise Feingold** has joined NCHGR as a program administrator in the Research Centers Branch. She will oversee genetic mapping research grants and individual fellowships, as well as coordinate the single-chromosome mapping workshops. Prior to coming to NCHGR, she participated in the NIH Grants Associate Program, working in the Office of Extramural Programs ... **Dr. Ray Fitzgerald** has been named new chief of the Spiritual Ministry Department at the Clinical Center ... **Dr. Patricia A. Grady** was recently appointed assistant director of NINDS, assuming most of the responsibilities of the NINDS deputy director. In her new post, she is responsible for executing the policies of the director, allocating resources to carry out those policies, and assisting the director in the management of all activities related to NINDS' mission and functions ... **Judith Grover** recently joined the Division of Research Grants as deputy chief of the Grants Information Office. She was previously a writer/editor in the Communications and Public Information Branch, Office of Prevention, Education, and Control, NHLBI ... **Dr. Penelope J. Hitchcock** has been appointed chief of the Sexually Transmitted Diseases Branch of NIAID's Division of Microbiology and Infectious Diseases. She joined the institute as a program officer in the STD branch in 1989. She served as acting

branch chief for several months prior to her new appointment. The focus of the branch is the control and prevention of STD's through a national STD program ... **Dr. Richard J. Hodes**, a senior investigator and chief of the immune regulation section in NCI's Experimental Immunology Branch, has been named director of the National Institute on Aging. He succeeds acting



director Dr. Gene Cohen, who had filled in for former director Dr. T. Franklin Williams for nearly 2 years. Hodes, an immunologist, was tapped for his strong scientific background. Former NIH director, Dr. Bernadine Healy, who made the appointment, stated that he will be especially effective in strengthening and expanding the scientific base of the institute, and that "his expertise in molecular and cellular biology and immunology will be of value as the NIA moves forward in pursuing the fundamental biological mechanisms involved in aging" ... **Dr. Daniel F. Hoth**, former director of the Division of AIDS at NIAID, has been appointed senior vice president and chief medical officer of Cell Genesys, Inc., Foster City, Calif. ... **John D. Mahoney** has been named NIH deputy director for management. He will be the principal financial officer in the Office of Director, overseeing a budget of some \$10 billion per year. He joined NIH in 1986 and was most recently NIH associate director for administration ... **Barbara McGarvey** has been named deputy director of the Office of Technology Transfer. In her new post she will manage the biomedical technology portfolio of the Public Health Service by facilitating and coordinating technology transfer activities

for the NIH, FDA, and CDC. She plans to focus on improving the basic patent and licensing services provided to the ICDs by her office ... **Dr. Jay Moskowitz** has been named NIH deputy director for science policy and technology transfer. He will address emerging social, legal, ethical and economic consequences of biomedical and behavioral research, and promote the NIH strategic planning process. He has served NIH since 1969 and was most recently NIH associate director for science policy and legislation ... **Dr. Kenji Nakamura** has assumed a position in the Grants Associates Program. He joined the program in November 1992. His primary research effort, conducted at the University of Illinois and the National Center for Toxicological Research, has been in the area of tumor biology with specific interest in the mechanism of action of viral oncogenes. His training will include inservice assignments at NIH and elsewhere in the federal government, courses, and attendance at the GA/HSA seminar series ... **Dr. Leroy Nyberg** was recently named senior urology advisor, a position approved by the HHS secretary. Under his leadership, a joint NIH/American Foundation for Urologic Diseases urology research training program has been developed, urology research centers have been established, and the NIDDK urology program has doubled in size. In addition to responsibilities as deputy director of NIDDK's Division of Kidney, Urologic, and Hematologic Diseases, he will continue to direct the urology and women's urological health research programs and chair the urology subcommittee of the kidney, urologic, and hematologic diseases interagency coordinating committee ... **Dr. Dai-il Paik**, an associate professor with the Seoul National University, has joined NIDR as a guest researcher, analyzing epidemiologic and behavioral sciences data from research he conducted in Korea ... **Dr. Steven M. Paul**, NIMH scientific director, recently ended a 17-year career with the institute to become vice president of the Lilly Research Laboratories of Eli Lilly and Co. in Indianapolis. He will oversee worldwide central nervous system discovery research activities at Lilly and will continue his own research program in neuropharmacology. In addition to his employment at Lilly, Paul will hold faculty appointments at Indiana University School of Medicine and serve also as a guest researcher at NIMH in the Clinical Neuroscience Branch ... **William Risso** was named deputy director for the Division of Computer

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Research and Technology. Before the appointment, he served as DCRT's associate director. He has been connected with NIH's biomedical computing environment for more than 20 years ... **Dr. Susana Serrate-Sztejn** has been appointed chief of the Rheumatic Diseases Branch, NIAMS. Prior to this appointment, she was chief of the autoimmunity section and a medical officer in the Division of Allergy, Immunology, and Transplantation, NIAID. She will plan, administer, and direct the institute's extramural research programs in arthritis and related scientific disciplines. She will also participate with the institute's national advisory board and other organizations in developing national policies, legislative activities, and overall goals related to the field of rheumatic diseases ... **Dr. William J. Sharrock** recently joined the NIAMS staff as a program director within the Bone Biology and Bone Diseases Branch. He will be managing a portfolio of grants in basic bone research, including the cellular, molecular, and developmental biology of bone cell metabolism by local and systemic hormones and growth factors. He will also administer training and career awards in these areas. He is a 1992 graduate of the NIH Grants Associates Program. Prior to coming to NIH, he was assistant professor in the department of biochemistry at the University of Minnesota ... **Dr. George Stone** has recently joined the Grants Associates Program. His research experience is in neuroscience and cell biology ... **Dr. Margaret Tucker** has been named chief of the Genetic Epidemiology Branch, which was created when the Epidemiology and Biostatistics Program of NCI's Division of Cancer Etiology was reorganized. This new branch was created because of changes and advances in the field ... **Dr. Bernadette Tyree** has joined the NCRR staff as a scientific review administrator in the Office of Review. She first came to NIH in 1981 as a staff fellow in NIDR, and returned as a grants associate in 1991 after working as a staff investigator at Howard University Cancer Center and as a biochemist at the Naval Medical Research Institute ... **Dr. Judith Vaitukaitis** has been appointed director of the National Center for Research Resources. She replaces Dr. Robert Whitney, who resigned in September 1992 to accept a position as deputy surgeon general. She is a reproductive neuroendocrinologist whose career combines managerial and scientific expertise. She served as acting director of NCRR since September



1992, and as deputy director for extramural research resources since 1991. Prior to that, she directed NCRR's General Clinical Research Centers Program, which oversees a nationwide network of 72 centers in major teaching hospitals in which physicians conduct research on human health. As a scientist, Vaitukaitis has made significant contributions to the development of the first specific pregnancy assay. For these achievements, she received the Clinical Radioassay Society's 1980 Mallinckrodt Award for Investigative Research. The pregnancy test she developed continues to be used. It has evolved into over-the-counter products for early pregnancy detection and for monitoring patients with tumors developed from placental tissues ... **Dr. Maureen "Jake" Wilson**, an administrative officer in the Division of Cancer Treatment, has been appointed NCI assistant director for cancer panel and ethics. She will also be executive secretary of the President's Cancer Panel, as well as the deputy ethics counselor for NCI.

RETIREMENTS

Rachel E. Brown, head nurse of the surgical oncology unit, cancer nursing service (2 East), retired in January after a 40-year nursing career, 30 of which were spent at the Clinical Center. Her unique touch was evident not only in her relations with her colleagues but also with her patients and their families. As yet, she has no special plans for her retirement, though she does not rule out volunteer work in her community ... **Harry Y. Canter**, chief of NCI's Research Analysis and Evaluation Branch, retired recently after 43 years of federal service. He has been RAEB chief since 1973. He transferred in 1960 to the NCI Research

Grants Branch (now called the Division of Extramural Activities), where he served as chief of the program analysis and reporting section from 1963 to 1973. He first came to NIH in the summer of 1951, when NIH was surrounded by farms and Rockville Pike was a country road. He was a biologist and worked in several laboratories. In June 1953, he transferred to NCI's Laboratory of Biology, where he worked under Dr. Howard Andervont. He became chief of the program analysis and reporting section in NCI's Research Grants Branch in 1963. He has always been a dedicated volunteer and he will continue his volunteer contributions in retirement ... **Elsie Cerutti**, who has served as reference and bibliographic services section chief in the NIH Library for the past 10 years of her 20-year federal career, has retired. She has been responsible for collection development of the library's materials, which includes deciding which journals, books, and other library resources to obtain, retain, or remove based on library user needs and available space. Additionally, she has overseen operation of the circulation/service desks, distribution of free MEDLINE access codes, the processing of computer searches, and coordination of the library's MEDLINE and Grateful Med training courses. Her retirement plans include moving to Bel Air, Md., and enjoying bird watching and walking ... **Kenneth Cooke**, NEI executive officer, retired recently after 32 years of government service. He spent 15 of those years with NEI, and the remainder in other NIH institutes. He came to NIH in 1968 to work in a lab at NCI. Shortly after his arrival, he became the first NIH employee to enroll in the inhouse NIH Management Intern Program. From there he worked at NICHD as a budget analyst, and in 1972 accepted the position of NEI's budget officer. After 4 years, he left NEI to become NIAID's deputy executive officer. In 1981, Cooke returned to NEI to become executive officer, a position he held until his retirement in December 1992. His retirement plans will involve continuing his hobby of buying, restoring, and selling antiques and antique lighting ... **James J. Doherty**, a writer and public information specialist at NCRR, recently retired after 17 years of federal service. He was information officer for the Division of Research Services and then NCRR from 1982 to 1992 and completed his federal service as special assistant to the director of NCRR. He performed a wide array of duties, from writing and editing

newsletters to handling media relations. Much of his activity was devoted to helping inform the public that research with animals is essential and lab animals are treated humanely. His hobbies include reading and Civil War history and walking along and exploring the C&O Canal ... **David Merriman** in the Division of Security Operations has retired after 32 years of federal service, 27 of those spent at NIH. He joined the police force 27 years ago when it was known as a guard force. In the past year he has served as a management analyst working in DSO's administrative office. For many years he worked at the animal facility at Poolesville and he recalled a funny story from his days there when the farm pond was open to NIH employees and their families for fishing. "One Saturday, Dr. Robert Marston, then the director of NIH, came to go fishing. He was wearing old shorts, a hat, and had no identification on him. I did not recognize him, so I refused him entry." Instead of a reprimand, Merriman received a letter of commendation from the director for performing his duty ... **John Stanford Nance, Jr.**, recently retired as NHLBI administrative officer, a post he has held for 16 years. He had served at NHLBI since 1968 (when it was the Heart Institute) and at NIH since 1962, when he joined the Office of the Director as an administrative trainee. As a volunteer he has performed magic shows for children at the Clinical Center—a service he will continue to do. He performed a little magic during his farewell when he wore a t-shirt with the slogan "I'm Retired. Having a Good Time Is My Job" ... **Carl E. "Mickey" Newman**, an x-ray technician at the Clinical Center, has retired after a 35-year federal career. After a stint in the Army he came out to NIH in December 1963 to begin work in the diagnostic radiology department. He eventually moved to NHLBI's cardiac catheterization laboratory where he worked on coronary dilatation procedures, research that led to a direct impact on the community. Newman has had a lifelong interest in music, especially jazz percussion. He plays the drums and the marimba, and plans to immerse himself in music ... **Emma Twyman**, EEO officer for the Division of Research Grants, retired after a career that spanned more than 30 years. She began working for NIH in 1963, in the Clinical Center nutrition department. In 1970, she took a position at DRG as a clerk typist, and later became the library technician and EEO

counselor for the division. In 1973, she participated in the NIH Upward Mobility Program and returned to college where she received her bachelor's degree in social welfare and rehabilitation and psychology in 1979. She was appointed the first DRG EEO officer in 1981. In retirement, she plans to devote more time to gardening and will be visiting her second home in North Carolina. She also plans to continue her work as a volunteer in Prince George's County ... **Dr. Charles "Chuck" Zierdt and Dene Ziert**, both in the clinical pathology microbiology service at the Clinical Center, have retired. He came to the Clinical Center in 1956. She joined the staff two years later. They married in 1967. Between them, they've published, together and separately, 118 scientific papers. In retirement he will continue his hobby, restoring antique cars. Gardening, crafts, writing, grandchildren, and great grandchildren will keep them both busy.

DEATHS

Dr. Hazel M. Aslakson, 79, a former official at NIH who also had been an Army nurse and educator, died of cancer Apr. 1 at her home in Fairfax. From 1968 to 1974 she had been project grants section chief in NIH's nursing division. In 1992, she returned to the Washington area after retiring from East Carolina University where she was associate dean in the nursing school and worked on the surgical curriculum at the university's medical school ... **Anne Marie Bahre**, 58, an official of horse groups in Montgomery and Frederick counties, died May 22 as a result of injuries suffered that day when she was thrown from a horse-drawn carriage. A member of the NIH Golf League and past member of the NIH Sailing Association, she was known at NIH for helping her husband Jim Bahre establish the Technical Sales Association's tent shows during the week of Research Festival at NIH ... **Dr. James H. Baxter, Jr.**, 79, a medical director in the U.S. Public Health Service who retired from NIH as a research scientist, died of a heart ailment May 5 at his home in Bethesda. He joined NIH in 1950 and specialized in kidney diseases and related heart problem at the NHLBI. He retired in 1976 ... **Barbara Ellen Belmont**, an NIH employee for more than 26 years, died on May 8 from chronic pulmonary disease. Much of her NIH career centered around children. From 1976 until her death

she worked as a social science analyst in the Laboratory of Developmental Psychology, especially on behavioral studies with children and their parents ... **George W. Blakeslee**, 77, a medical instrument maker who retired in 1975 after working in the Biomedical Engineering and Instrumentation Branch at NIH, died May 15 at a hospital in Ormond Beach, Fla., of complications after heart surgery ... **Gregory R. Bowman**, 33, secretary for NCRR's Biological Models and Materials Research Program since its creation in 1989, died of pneumonia Apr. 1. After a stint in the Air Force his federal civil career began in 1983 when he went to work for the Naval Air System Command as a clerk/typist. He then went on to work at Walter Reed Army Medical Center and the Department of Navy before joining DRR in 1989. (DRR later merged with DRS to form the current NCRR) ... **Dr. Dale C. Cameron**, 80, a retired U.S. Public Health Service officer, died of an aortic aneurysm May 12 at a hospital in San Diego. From 1945 to 1954, he worked at the National Institute of Mental Health and at St. Elizabeths Hospital from 1960 to 1967 when he retired as superintendent. He retired with the rank of assistant surgeon general. From 1967 to 1974, he was chief of drug dependency programs at the World Health Organization in Geneva ... **Dr. Theodore Cooper**, 64, the board chairman and chief executive officer of the Upjohn Co., died Apr. 22 at the University of Virginia Medical Center in Charlottesville, where he was being treated for bone marrow cancer. He had first come to NIH in 1956 as a staff fellow with the National Heart Institute's Clinic of Surgery. In 1960, he joined the surgical faculty of St. Louis University School of Medicine where he rose through the ranks to professor. After 1961, he served as director of that university's Center of Cardiovascular Research. In 1966, the University of New Mexico Medical School recruited him to be professor and chairman, department of pharmacology, and professor of surgery. He secured a leave of absence to return to NIH to become NHI's associate director for Artificial Heart-Myocardial Infarction Program. In March 1968, he was named the seventh director of NHI and the first under the redesignated name NHLI. On Apr. 19, 1974, he moved downtown as HEW deputy assistant secretary for health, and on July 1, 1975 was sworn in as HEW assistant secretary for health (see photo). His government service

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ended on Jan. 20, 1977, and shortly thereafter he was appointed dean and provost of the Cornell University School of Medicine until joining the Upjohn Co. in 1980. He became executive vice president and was named board vice chairman in 1984 and chief executive officer in 1987. A devoted and passionate NIH supporter, Cooper responded unfailingly to every request for advice and council on NIH programs, policies and personnel. The NIHAA is especially in his debt for spearheading the campaign that raised the funds that have supported the last two years of publication of this newsletter ... **Frances Irene Cryan**, 67, a secretary at NIH from 1962 to 1975, died of emphysema Apr. 12 at her home in Annapolis. She was secretary to the directors of the National Eye Institute and the National Institute of Child Health and Human Development and to the executive officer of the National Institute of Neurological Diseases and Stroke ... **Dr. Eldon Eagles**, 82, a physician who retired in 1979 as longtime deputy director of the Institute of Neurological and Communicative Diseases and Stroke, died of congestive heart failure Mar. 14 at Montgomery General Hospital. During his 15 years with NINCDS, he was deputy to three institute directors. An expert in communicative disorders, with an extensive background in public health, he was known for his contribution to the study of hearing loss in school children in Pittsburgh, which set national standards for hearing sensitivity and resulted in improved hearing

tests ... **Blanche E. Fors**, a retired administrative assistant in the digestive disease branch of NIH, died of heart ailments Feb. 4 at her home in Bethesda. She began working at NIH in 1961 and retired in 1976 ... **Dr. Karl Frank**, 76, who retired in 1979 after 27 years as a neurophysiologist at NIH, died of Parkinson's disease Feb. 25 at the Meridian nursing home in Silver Spring. He lived at the Aspenwood Retirement Center. He was chief of the Laboratory of Neural Control in the National Institute of Neurological and Communicative Disorders, conducting research in the development of devices to aid the neurologically disabled ... **Dr. Walter Henry Freygang, Jr.**, a retired neurologist at NIMH, where he did basic research in nerve and muscle physiology, died of cancer July 20 at his home in Washington. He went to work at NIMH in 1952 where he served as chief of the section of membrane physiology and later as a senior researcher and medical director. He retired in 1972. For one year he was a clinical professor of neurology at Georgetown University medical school. He also was a visiting scientist at Cambridge University in England and a visiting professor at the University of Heidelberg in Germany ... **Norman J. Gettings**, who worked at NIH from 1949 until he retired in 1978, died Mar. 11 at Suburban Hospital in Bethesda. He held the position of acting maintenance superintendent when the Clinical Center first was completed and occupied, and retired as

assistant chief of the planning and control section of the Plant Engineering Branch ... **Lester Goodman**, 65, a former chief of the Biomedical Engineering and Instrumentation Branch at NIH, died Apr. 12 at the Crystal City Nursing Center in Arlington. He had a degenerative brain disease. He joined NIH in 1965. In 1975, he moved to Minneapolis where he worked with a company specializing in cardiac pacemakers. In 1989, he became a consultant to Case Western Reserve until he became ill and returned to the Washington area in 1983 ... **Annie S. Gulik**, 100, a retired purchasing agent with the General Services Administration and a volunteer at NIH, died of heart ailments Apr. 11 at Villa Rosa Nursing Home in Mitchellville, Md. ... **Dr. Alonzo R. Hayden**, 68, a research chemist at NIH, died of colon cancer Mar. 21 at his home in Yonkers, N.Y. In 1952, he joined the staff at NIH and specialized in immunological identification of species in meat. He left NIH in 1958 to work at Walter Reed Army Medical Center and then for the Department of Agriculture. He moved to Yonkers in 1983 ... **Dr. Williamina Armstrong Himwich**, 81, a retired medical researcher who specialized in various aspects of the brain and drugs that affect the nervous system, died of a stroke May 11 at Howard County General Hospital in Columbia. She moved to the Washington area after she retired in 1977 from Galesburg State Research Hospital in Galesburg, Ill. From 1979 to 1981 she was an indexer at the National Library of Medicine ... **Edith A. Jones**, 73, a dietician and nutritionist who was a retired NIH official, died June 24 at Washington Adventist Hospital after surgery for a heart ailment. She joined the Public Health Service in the early 1950's. In 1953, she became nutrition department chief of NIH's Clinical Center and remained there as the chief dietician officer before retiring in 1983 ... **Dr. J.B. Horner Kuper**, 83, a physicist and former department chairman of Brookhaven National Laboratory on Long Island, died June 8 at the Glacier Hill Retirement Residence in Ann Arbor, Mich. of complications from a fall. Before World War II he worked at NIH as a physicist ... **Stephanie Lanterman**, 38, an employee of the Foundation for Advanced Education in the Sciences Inc., died Mar. 10 at her home in Bethesda after a heart attack. She worked for the foundation since 1972 handling the details and operation of running the graduate school at NIH as the assistant registrar



Dr. Theodore Cooper is being sworn in as HEW assistant secretary for health by then HEW secretary Caspar Weinberger. Cooper's wife "Patsy" is in the center and President Gerald Ford is on Cooper's right. (Photo courtesy of Mary Calley Hartman.)

... **Rose Ann LaRue**, 79, a former administrative assistant at NIH, died of cancer July 1 at her home in Treasure Island, Fla. She worked at NIH in the 1970's ... **Dr. James I. Lore**, 70, a retired psychologist, speech pathologist and audiologist, died of a heart ailment at his home in Arlington. His body was found Feb. 24. He was a grants associate at NIH ... **Patricia Stanton McLean**, 77, a retired educator and leader in the dental hygienist profession, died of heart disease on June 8 at the Westchester County Medical Center. She retired in 1977 as the director of Columbia University's Division of Dental Hygiene and was an assistant dean at Columbia's School of Dental and Oral Surgery. She was a consultant to NIH ... **Mary Bertha Medley**, 80, the human resources manager of the Cystic Fibrosis Foundation and a former personnel official at NIH, died of a heart attack June 26 at her home in Rockville. She began working for NIH in 1947 and retired as labor relations chief in 1977. She worked for the Cystic Fibrosis Foundation from 1980 until her death ... **Julian M. Morris**, 51, an employee at NIH for almost 30 years, died Apr. 18 at his home in Washington, D.C., from complications related to AIDS. In 1963, he joined the NIH Information Office as an intern and in 1970 was named information officer at the National Eye Institute where he served as the institute's chief press and public spokesperson ... **Dr. Gertrude P. Quinn**, 71, a pharmacologist who worked for 25 years as a researcher with CIBA-GEIGY, died Jan. 15 in Morristown Memorial Hospital in Morristown, N.J., after a brief illness. She was an expert in the field of drug metabolism and did post-doctoral research at NIH in the Heart Institute's Laboratory of Chemical Pharmacology ... **Dr. Bernice T. Radovich**, 75, a retired scientist who worked in the breast cancer task force in the Division of Cancer Biology and NCI, died of respiratory ailments Apr. 30 at Manor Home in Fairfax. She was at NIH from 1972 until she retired in 1985 ... **Dr. Nelson Kellogg Richtmyer**, 91, a chemist who retired in 1971 after 37 years with NIH, died of cancer June 6 in Bethesda. He worked at the National Institute of Arthritis and Metabolic Diseases where his research included work on rare and higher-carbon sugars and enzymes and bacterias that affect sugars. He wrote more than 100 research papers. In 1963 he was presented with the Claude S. Hudson Award for his outstanding contribution to chemistry in his field. The award is

named for Hudson who was chief of the NIH Laboratory of Chemistry from 1929 to 1951. Richtmyer worked closely with Hudson when he was in the laboratory. He also coedited the two-volume edition of "The Collected Papers of C.S. Hudson" ... **Dr. William L. Roberson**, 72, a retired physician with the U.S. Public Health Service who worked at the National Cancer Institute, died on Mar. 10 at his home in McLean, Va. He was commissioned in the U.S. Public Health Service in 1948 and in 1962 was assigned to NCI. At the time of his retirement in 1984 he was program director of the Cancer Centers Branch ... **Roger L. Robertson**, 73, a program analyst with the National Institute of Mental Health for 21 years before retiring in 1979, died of cancer May 7 at his home in Kensington ... **George R. Rogers**, 64, an independent contractor affiliated with Blind Industries, Inc., for more than 42 years and manager of Bldg. 31's concession stand, died July 1. He and his wife Margaret handled the brisk snack business in Bldg. 31 for approximately 10 years ... **Dr. Albert Sabin**, 86, who developed the oral vaccine for poliomyelitis, died of congestive heart failure, Mar. 3 at Georgetown University Medical Center. It has been estimated that by the time of his death about 5 million cases of polio and 500,000 deaths had been prevented by his vaccine worldwide. He had a long and distinguished career (spanning five decades) at the Lister Institute (England), Rockefeller Institute (New York), University of Cincinnati College of Medicine, as president of the Weizmann Institute of Science (Israel), and at the Medical University of South Carolina (Charleston). Throughout his career he maintained ties to NIH. From 1947 to 1973, he was a consultant to the U.S. Public Health Service, and was a member of the National Advisory Council of NIAID from 1965 to 1970. In 1973, he was selected as a Fogarty Scholar-in-Residence. In 1974, he was an expert consultant with NCI, and from 1975 to 1977, he was a consultant to the assistant secretary for health. In July 1984, he was appointed a Fogarty International Center senior expert consultant ... **Dr. Joseph F. Saunders**, 66, a biochemist who retired in 1992 as executive director of the American Association of Immunologists, died June 11 at Fairfax Hospital after a heart attack. He was director of the immunologists association for six years. Prior to that he was deputy associate director at NCI for 15 years. He was head of the institute's office of international

affairs where he coordinated cancer research with other nations ... **Walter Raymond Seecry**, 73, a lawyer and psychiatric social worker with the U.S. Public Health Service who retired as a captain in 1987, died of cancer Mar. 17 at Bethesda Naval Hospital. He joined the staff of NIH in 1956 and worked on a range of projects involving 2,500 newlywed couples, manic-depressive patients, children with hyperactivity, people with anorexia nervosa and obsessive compulsive disorder. With all the projects he provided psychotherapy for individuals and families. He also counseled NIH employees with alcohol, drug, mental health and legal problems. He contributed extensively to the professional literature. After his official retirement he continued collaborating on several research projects ... **Sally J. Stanley**, 55, a member of the NHLBI intramural program for 33 years, died on Feb. 11 after a brief illness. She started working at NIH in 1960 and joined what is now the Laboratory of Cellular Metabolism ... **Dr. Michael Edward Stanley**, 49, a Columbia University neuroscientist known nationally for research on the biochemistry of suicide, died at his home in Short Hills, N.J. of a heart attack. He was a consultant for the National Institute of Mental Health, which provided grants for much of his work ... **Dorothy Helen Veigle**, 70, a secretary at NIMH and NIH from 1966 to 1984, died of cancer July 15 at her home in Kensington ... **Dr. Robert H. Waldman**, 54, a medical educator who was vice president of the division of medical student and resident education at the Association of American Medical Colleges, died of cancer July 10 at his home in Alexandria. From 1965 to 1967, he was a clinical associate at NIAID. He was a former dean and professor of internal medicine at the University of Nebraska. He had also taught at the West Virginia University medical school and the University of Florida ... **Elizabeth (Betty) Wiehle**, former budget officer at the Heart Institute in the 1950's and 60's, died May 29. She also raised cocker spaniels and was a charter member of the NIH Hamsters.

The NIH Alumni Association recently received from Mrs. Mary Calley Hartman contributions in memory of Edith Jones and Stephanie Lanterman.

NIH Retrospectives



Summer 1953

On July 2, the Clinical Center was dedicated by DHEW Secretary Oveta Culp Hobby, extending the clinical aspects of NIH's research programs ... On July 6, the first patient was admitted to the Clinical Center by Dr. Roy Hertz (see photo below).



Summer 1963

The impact of dental research in the United States during the past 15 years was surveyed by speakers in a scientific seminar held on June 14 in observance of the fifteenth anniversary of the National Institute of Dental Research ... The new 9-story, air-conditioned Westwood Building, located at 5333 Westbard Avenue, Bethesda, soon will house the offices of nearly 1,000 NIH employees, including the Division of Research Grants, the National Institute of General Medical Sciences, and all extramural programs except those of NIMH ... Dr. DeWitt Stetten, Jr., former director of intramural research, National Institute of Arthritis and Metabolic Diseases, was honored with a farewell reception in Wilson Hall, Friday, May 24. He became dean of the new Rutgers University Medical School last November ... Dr. Joseph E.

Smadel, 56, chief of the Laboratory of Virology and Rickettsiology of the NIH Division of Biologics Standards, world-renowned for his pioneering assaults on infectious diseases including typhoid fever, scrub typhus and Rocky Mountain spotted fever, died July 21 at University Hospital, Baltimore, after a short illness.



Summer 1973

On May 29, 1973, Dr. Robert S. Stone was sworn in as the tenth director of NIH. Stone had been vice president for health sciences and dean of the School of Medicine at the University of New Mexico, Albuquerque ... The Clinical Center commemorated the 20th anniversary of its opening with a day-long scientific seminar on the impact of basic science on clinical research and medical practice ... June 18, 1973, marked



Charles Meredith, a 67-year-old farmer, was the first patient admitted to the Clinical Center under the care of Dr. Roy Hertz (rear), who treated him with hormone therapy. "We had marvelous, wonderful nurses," Hertz said of the Clinical Center staff. Standing behind Meredith is Nadine Luxmore and holding the chart on his side is Elizabeth Walker.

the opening day of the NIH Child Development Center—the nursery school for children of NIH employees ... Two eminent women scientists—Dr. Margaret Mead, world-famed anthropologist, and Dame Janet Vaughan, an outstanding British pathologist, have been appointed Fogarty Scholars-in-Residence. This is the first time women have been invited to join the program.



Summer 1983

Dr. Wallace Prescott Rowe, chief of the Laboratory of Viral Diseases, NIAID, a world-renowned virologist and a leader in recombinant DNA research, died of cancer, July 4, at Johns Hopkins Hospital, Baltimore, the city of his birth ... Dr. T. Franklin Williams was installed as second director of the National Institute on Aging.

Clinical Center's 40th Anniversary Highlighted by Alumni, Nobelists



Dr. Julius Axelrod: "I think I came to NIH at the right time. It was the right place for me. I think if I worked any place else I never would have gotten as far as I have."



Dr. Christian B. Anfinsen: "I remember this place with tremendous affection and gratefulness, because of the set up here. It was so ideal for producing scientific work."



Dr. D. Carlton Gajdusek: "I came here in 1958. I was told 'you can do anything you want.' It was right. It was a period of logarithmic expansion."



Dr. Marshall W. Nirenberg: "I have to say that I'm proud to be part of an institution ... that's contributed so much to the advancement of biomedical sciences. And I also sense the opportunities that lie just around the corner for the next new discoveries."



If You Are Not Yet A Member of the NIHAA [Clip and mail]

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I would like to apply for membership in the NIH Alumni Association. My NIH position:

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NIH Alumni are people who have worked or studied at NIH. Present NIH staff are invited to join as associate members.

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Varmus Outlines Leadership Plans at Senate Hearing

By Rich McManus

At his confirmation hearing last Nov. 3 before Sen. Edward Kennedy's (D-Mass.) Senate committee on labor and human resources, NIH director Dr. Harold Varmus outlined his most important priorities for NIH: filling top jobs at NINDS, NIDA, the Clinical Center and the Office of AIDS Research; conducting a major reevaluation of the \$1.2 billion intramural programs; establishing strong principles for equal employment; and addressing encumbrances in the peer-review process governing extramural awards.

Throughout the hour-long hearing, Varmus, who was joined by his wife Constance Casey and one of their two sons, Christopher, a high school student, repeatedly emphasized the importance of basic research to NIH's mission.

"Undirected NIH funding in support of brilliance" is NIH's prime value to the nation, said Varmus, who used the example of 1993 Nobel Laureate Phillip Sharp to illustrate the value of nurturing hidden talent—Sharp hailed from a small college in Kentucky before going on to a distinguished career in biology at MIT—to maturity. Twenty-five years of NIH grant support preceded Sharp's Nobel Prize in Physiology or Medicine, Varmus pointed out.

Kennedy began the hearing by calling Varmus "an outstanding choice to lead the NIH...He is widely recognized for his ability to manage and lead.

(See Varmus p. 15)

Give 'Em Health, Hillary!

First Lady Visits NIH, Gets Science Briefing

By Rich McManus



NIH director Dr. Harold Varmus (l) with HHS Secretary Donna Shalala watch as First Lady Hillary Rodham Clinton signs the NIH visitor's log at the entrance of Bldg. 10.

First Lady Hillary Rodham Clinton came to NIH Feb. 17 for a visit during which she was briefed by researchers and met patients before giving a 20-minute speech championing the president's health care reform initiative in Masur Auditorium. She capped her stay with a stop at the Children's Inn at NIH, chatting with parents, patients, and staff.

The first lady arrived shortly after 10 a.m. with HHS Secretary Donna Shalala and was greeted at the entrance of Bldg. 10 by NIH director Dr. Harold Varmus, NIH deputy director Dr. Ruth Kirschstein, and by Dr. Philip

(See Clinton p. 21)

NIHAA Selects Vagelos As Its Second Public Service Awardee

The NIH Alumni Association board of directors has selected Dr. P. Roy Vagelos to receive the group's second Public Service Award. Vagelos is the chairman and chief executive officer of Merck & Co., Inc., one of the world's leading health products companies.

The awardee was chosen for his impressive contributions to the public good as a former NIH intramural scientist, an academic and scientific leader and as a medical scientist who has risen to the top rank of the nation's business community.

Vagelos received his undergraduate degree from the University of Pennsylvania and his M.D. from Columbia. At NIH from 1956 to 1966,

(See Vagelos p. 2)

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Vagelos (continued from p. 1)

he served in the Laboratory of Biochemistry in the then National Heart Institute. He was named chairman of the department of biological chemistry at Washington University School of Medicine in 1966, and from 1973 to 1975, he served as director of the university's division of biology and biomedical sciences.

In 1975, Vagelos became senior vice president for research of the Merck Sharp & Dohme Research Laboratories Division, becoming president of the division in 1976. Starting in 1982, he served additionally as senior vice president of the parent company with responsibility for strategic planning. In 1984, he was elected executive vice president of Merck & Co., and was named president in 1986.

During his tenure a new and highly effective anti-filarial agent, discovered in Merck's laboratories, has been made widely available, virtually free of charge, for the treatment of onchocerciasis (river blindness), estimated to affect 40 million people in Equatorial Africa and to blind 5 percent of them. In this same period, Merck provided the funds that enabled NIH to construct

the Children's Inn on campus.

His honors include election to Phi Beta Kappa, Alpha Omega Alpha, the American Academy of Arts and Sciences, the National Academy of Sciences and the Institute of Medicine. The recipient of eight honorary degrees, he is the author of more than 100 scientific papers and serves as a trustee or director of numerous and diverse companies and not-for-profit organizations. He is married to the former Diana Touliatos; they live in New Jersey and have four children.

The award will be presented to him at NIHAA's annual meeting on Saturday June 18, 1994. The award was presented to Rep. William Natcher (D-Ky.) last year.



Dr. P. Roy Vagelos

Thank you to our friends

The NIHAA warmly welcomes the following organizations that joined in the category of "Friends" and wishes to acknowledge its appreciation for their generous support:

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We would also like to express our deep appreciation to the following contributors to NIHAA-sponsored events in 1992:

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Credit

NIHAA Update is supported by grants from Glaxo Inc., Sandoz Research Institute and the Upjohn Company.



Members of the Laboratory of Biochemistry, NHI, in 1963 assemble in front of Bldg. 3. Dr. P. Roy Vagelos is in the upper right hand corner of the second row.

Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814, (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or comments on and suggestions for the NIHAA Update, please drop a note to the editor. We reserve the right to edit materials.

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NIHAA Essay

A 40-Year Perspective

By Dr. Murray Goldstein,
former NINDS director

When I arrived at NIH in 1953, many operating principles and practices had been established: the research effort was biomedical—not medical. Thus basic and clinical science pertinent to health was our mission. Otherwise, the NIH mission was relatively unspecified.

The NIH director and the institute directors were career appointees and always members of the PHS Commissioned Corps. The NIH director did not submit his resignation with a change in the administration. There was stability in executive management.

The seven institutes were disease based (cancer, heart) or discipline based (microbiology, metabolism). Cross-cutting institutes (general medical sciences, aging, child health) had not been created. The Division of Research Grants had a small grants program that met unspecified needs.

The intramural research programs were institute-based—scientifically, administratively, politically and financially. There was no shortage of research space or equipment and supplies; there were few restrictions on the number of employees; laboratory and branch chiefs had been recruited internationally. The facilities were occupied by many young physicians serving their military obligations as PHS officers; they were later to become the NIH seed corn as clinician-scientists in universities nationally and internationally.

The scope of the intramural research program had just been broadened with the opening in 1953 of the NIH Clinical Center. The Clinical Center was a human research facility (not a hospital), which, like the Rockefeller Institute, would become a national model for



Dr. Murray Goldstein

integrating basic and clinical research in a facility dedicated to research.

Intramural research was investigator-initiated, directed by laboratory and branch chiefs; the institute scientific director (actually director of intramural research) was responsible for recruitment, maintenance of scientific quality and allocation of intramural resources. The NIH associate director for intramural research was responsible for broad aspects of administrative management and was the "guardian" of the independence of the intramural scientist.

Intramural morale was high; productivity was high; the scientist and his/her research endeavor was the compelling force. Research contracts were used primarily to support intramural research needs. The intramural program had a sizable "research training" endeavor; postdoctoral research and postdoctoral clinical fellows were active participants in every aspect of the program.

The extramural research program was comprised almost exclusively of investigator-initiated individual research projects. The average grant totalled \$35,000 a year for three years. It was

(See Goldstein p. 4)

Goldstein (continued from p. 3)

rare for a principal investigator to request salary support since he/she was generally a salaried member of a university faculty or hospital staff. Funding decisions were recommended by advisory councils for each institute. The council received scientific advice from panels of scientists—the study sections—advice that, on the whole, the council took, but on individual projects, sometimes didn't. The funding rate of approved applications was about 90 percent (To make certain it didn't go higher, NIH initiated a lower 10 percent non-funding rule). The effect was the establishment of a national peer review system for making decisions and a high probability of the funding of scientifically meritorious research.

The extramural program supported individual research fellows at the pre-doctoral and postdoctoral level and individual clinical trainees in specialty clinical areas. It also provided training grants to institutions for the education of medical students in cancer, heart disease, and mental health.

Then Came the Fountain Committee

In the mid 1960's, the NIH budget reached \$1 billion. The NIH was no longer a small agency housed in Bethesda outside the geographic center of authority. Its visibility was growing and its activities began to attract more attention from congressional committees.

First was the House subcommittee on intergovernmental relations chaired by Rep. L. H. Fountain (D-N.C.). Rep. Fountain asked: How did NIH audit the expenditures on individual grants? NIH replied that a grant was a conditional gift to a grantee organization—usually a university. The NIH audited science; the grantee institution audited expenditures. Fountain's staff, however,

had already found examples of questionable use of grant funds, exercising a time-honored committee rule—don't ask a question unless you already know the answer.

The diligence of NIH in protecting public funds was challenged. As a result, the pursuit of science important to the public health was no longer NIH's only responsibility. Fiscal reliability, good management and efficiency were added. Management regulations of the department, which NIH had felt did not pertain to it, were discovered and enforced. NIH developed a series of administrative regulations and hired additional administrative staff, including more budget officers and grant management personnel in each institute.

Over time, several expert committees of non-government experts were convened to review the intramural and extramural research activities of NIH. All in all, the reports were favorable, generally making constructive recommendations. However, NIH and its own advisory committee structure were no longer the sole scientific auditors of NIH's mission and accomplishments.

A new principle entered the NIH lexicon—accountability; accountability to the administration, the Congress, the scientific community and the public. Program planning and program reporting became important operational responsibilities; reports and more reports were required and the necessary staffs to generate them were recruited. The role, responsibilities and authority of those staff increased. A leadership troika to govern NIH activities was put in place: scientists, science administrators, and administrators. They had always been there, but the relative power structure had shifted away from science leaders; authority was now shared equally among the members of the leadership troika.

The concept of an extramural grant being a "conditional gift" to a scientist and his/her institution was challenged and modified. The growth of indirect cost needs and of salary support for tenured university staff changed the concept to one of "government sponsored research" and demanded full cost reimbursement. The idea that the NIH was making a contribution to the scientist and institution to assist in the support of *their* research was modified. Whose research was it now—the scientist's or the government's?

While this change in grant philosophy was being put in place, another important mechanism was being explored—NIH collaborative research. Collaborative research between individual NIH scientists and non-government colleagues had always been operational. But now the concept of NIH collaborative research programs was being developed and expanded. The Cancer Drug Development Program was the model. NIH scientists and science administrators, often with the advice of extramural panels, decided on the program, its goals, objectives, targets and sometimes methods. NIH invited the scientific and industrial communities to join it for a targeted effort. The contract was the mechanism of choice, often complemented by intramural and extramural grant activities. Over time the collaborative research concept grew to include other drug development programs, epidemiological investigations, clinical trials, vaccine development, and the human genome.

NIH was charged with meeting societal responsibilities: protection of human subjects in research; protection of animals in research; funding of industrial growth and development; greater diversity of funding geographically; increased funding of small and minority institutions; targeted training

of women and minorities; and improved conditions in the work place and in promotion opportunities.

Finally, the NIH director had been a career appointment. He was a member of the PHS Commissioned Corps and because of the longevity of the appointment, firm and warm relationships were established with key members of Congress. His relationships to elected and appointed officials of the administration were relatively distant. However, these relationships changed radically when President Nixon asked for and accepted the resignation of the NIH director. Henceforth, the NIH director was a member of the administration, serving at the pleasure of the President and department secretary, and responsible for implementing their policies. The Congress remained the NIH patron, but had to impose fiscal constraints on NIH appropriation growth. NIH dependence on the OMB planning process and on the President's budget proposal increased.

Issues for the 1990's

In the 1990's the issues for NIH's future direction are in place: limited resources; an aging infrastructure; sizeable staffs concerned with administrative, fiscal and scientific accountability; increasing emphasis on targeted endeavors—targets often identified outside NIH, but not always; an increase in the size of the organizational structure (and management costs) by the continuing growth of the number of institutes, centers and divisions; growing attention to societal issues; and increasing efforts to micromanage NIH by the administration, the Congress and national organizations—some scientific, others societal. On the other side of the ledger, NIH has spawned the largest and most successful biomedical research endeavor

in the history of science—and it has barely scratched the surface of opportunity and accomplishment. Cell biology, molecular medicine, immunology and neuroscience are just now providing the leads the new biology can offer the clinical scientist. Modern technology, molecular pharmacology and clinical trials now offer the gateways for disease prevention and restoration of function that in 1953 were but the aspirations of medical philosophers.

The NIH has matured. It is now an "established" agency in government; it is no longer a fledgling, growing rapidly and feeling its way in the arena of science and government.

The immediate future? Who knows? As Mao Tse-Tung is reported to have said when asked to comment on the impact of the French Revolution: "It is probably too early to know." However, certain issues about the future of NIH are evident:

The administration is thinking of replacing the "bottom-up" research planning and priority-setting approach with a "top-down" approach—The National Science and Technology Council will be at the top. What is the role of the NIH director? Coordinating the NIH research endeavor? Setting research priorities for individual institutes? Also, will the Office of the Director continue to have its own research program or will the conduct of all research at NIH be kept within institutes, divisions, and centers?

The NIH intramural program is an established player in the health sciences, both from the viewpoint of scientific accomplishment and research training. It has space, recruitment, staff retention, monetary and management problems. But with the phenomenal growth of the university research structure, what role should the NIH intramural program play in the future? One

of a number of centers of excellence? A unique national resource; unique in what way?

The extramural grant program has become the lifeblood of American biomedical science. The concept of the peer review system is the international model for research resource allocation. But is size and complexity is smothering its flexibility. It is no longer "user friendly." A scientific merit rating system designed to decide which grants should *not* be funded is being used to decide which grants should be funded. Should the grant review system be simplified and decision making accelerated?

The size and impact of NIH collaborative and targeted research endeavors continue to grow. Government direction of biomedical research nationally is increasing. With less growth for intramural and for extramural grant research, the non-government communities are responding favorably to NIH solicitations. Are we approaching the concept of a single national government laboratory without walls? Are the universities accepting their share of the research leadership burden? Can they?

The only system—social, biological or administrative—that doesn't respond to change is a dead system. The NIH is responding to change—it is very much alive. The future for NIH and for the scientific community will be different, but it needs to be different. The 1990's will be an exciting time.

Acknowledgement

I want to acknowledge that the history of NIH that I have presented was shared with me by Dr. J. Franklin Yeager and Dr. Ralph Meader and my many colleagues at NIH over the years. To all I express my gratitude for their instructions and my apologies for being a poor pupil.

Seventh Research Festival

1993 NIDDK Alumni Symposium—Site of Many Happy Returns

By Carla Garnett and Anne Barber

NIH's intramural community shared many happy—and scientifically fruitful—returns as it ushered in both the harvest season and NIH's seventh Research Festival with the annual Distinguished Alumni Symposium.

A capacity crowd assembled last Sept. 20 in Masur Auditorium for "Contributions of Basic Science to Biomedical Research," a symposium of six 30-minute lectures by former NIDDK intramuralists, including Dr. Elizabeth Neufeld, the 1993 recipient of the fourth NIH Distinguished Alumni Award.

"This is a wonderful way to get the research festival started," said Dr. Phillip Gorden, director of NIDDK, which sponsored this year's alumni symposium. "We are proud to present this award to Dr. Neufeld. Her achievements symbolize the immense value of basic research to biomedical science."

"It is very moving to receive an award from one's own institution," Neufeld said. "It is much better than many other awards."

Born in Paris, France, and educated in New York and California, Neufeld said she had trained originally as a plant biochemist, but was recruited to NIH in 1963 by Dr. DeWitt Stetten, Jr. "with a lot of help and intermediation from [NIAMD Laboratory of Biochemistry and Metabolism colleague] Vic Ginsburg, who convinced Hans Stetten to take a chance on a plant



NIDDK director Dr. Phillip Gorden presents the 1993 Distinguished Alumna Award to Dr. Elizabeth Neufeld, a 9-year grantee who also spent more than 20 years in intramural research.

biochemist and convinced me to take a chance on the NIH."

Before leaving NIH in 1984, Neufeld held positions as chief of NIDDK's Genetics and Biochemistry Branch and deputy director of the institute's Division of Intramural Research. Her pioneering research on mucopolysaccharide metabolism has led to proper diagnosis of such rare but debilitating diseases as Hurler's syndrome and Hunter's syndrome.

"Hans told me my duties when he recruited me," she recalled, wryly. "He said I was to do the best possible science that I was capable of and that I would never, ever be asked to work in either arthritis or metabolic disease, even though that was then name of the institute. I mention this because I think it is an important lesson now on how we speak so much about targeted research."

Currently professor and chair of the department of biological chemistry at UCLA's School of Medicine, Neufeld spoke first about the politics of research

funding from the perspective of a scientist who has spent more than 9 years as part of extramural NIH as an NIDDK grantee following more than 20 years as a member of NIH's intramural community. She compared the extramural and intramural programs at NIH.

"I think they both work equally well when times are good," she noted, "but they both preach rather painfully when resources are scarce...I was privileged to be able to grow up professionally in this institute and to be sheltered. I would say, by my scientific director as well as by my lab chiefs, Leon Heppel and Gil Ashwell, and later on, John Decker. I think in the outside world it is far harder for a scientist to get started. This system is not very tolerant of mistakes that new scientists make."

When Neufeld came to NIH in 1963, the institution—headed then by Dr. James Shannon—was in the midst of what is now frequently referred to as the "golden age" of NIH. During that era, the biomedical research field in general—and NIH in particular—was

highly valued across the nation and, as a result, generously funded.

Times are tougher these days. Neufeld noted. Often, she said, talented young researchers are told that their good ideas cannot be funded. "It is one of my jobs today as a department chair to support my faculty both fiscally and morally until they are judged worthy [of grant privileges]."

Attending the many workshops—of which there were 45—were seasoned NIH researchers as well as newcomers seeking the latest information. It was in one particular workshop—"Antisense"—held in one of Bldg. 10's conference rooms, that the crowd was overflowing to the extent that when Beata Buzas left the room, she could not get back in. "I work in this area and was enjoying the session, but now I'm disappointed I can't get back in," said Buzas, a postdoc in USUHS's Laboratory of Pharmacology. "Antisense is a hot topic. I wish they had put it in a bigger room." She said her husband works at NIH and thinks the festival is a great idea. "He says it offers you the chance to get acquainted and discuss your project with other people in your research area."

Dr. Irwin J. Kopin of NINDS, who served as chairperson of the Research Festival organizing committee, visited the various workshops. "I think the attendance is larger than last year," he opined. "But then," he added, "we always have a great turnout. Lots of excitement." Kopin was quick to praise his fellow committee members, especially Devera Schoenberg, who served as coordinator for the organizing committee, and Tom Flavin, chairperson of the coordinating committee.

The 1994 Research Festival is scheduled for the week of Sept. 19-23. Details about the program will be in the next issue of *NIHAA Update*.

Calendar of Exhibits and Upcoming Events

MARCH—AUGUST

An exhibit of color etchings and drawings by New Orleans artist May H. Lesser on "The Art of Medicine at the 21st Century" is on display in the front lobby of the NLM (Bldg. 38, 8600 Rockville Pike) until mid-April.

Opening later in April will be another exhibit entitled "If you knew the conditions...": Health Care to Native Americans. Photographs, government documents, manuscripts, maps and other audio-visuals will be displayed until August. For further information call the History of Medicine Division, NLM, (301) 496-5405.

APRIL

The DeWitt Stetten, Jr., Museum of Medical Research will sponsor an exhibit entitled "Synthetic Opiates and Opioids: Drugs as Medicines, Drugs as Research Tools," in the area near the Lipsett Amphitheater, Bldg. 10. The exhibit will feature the research of the Laboratory of Medicinal Chemistry, NIDDK, headed by Dr. Kenner Rice. For more information call Dr. Victoria Harden at (301) 496-6610.

This is an opium poppy seed pod lanced to allow sap to emerge. When the sap is scraped and dried the result is raw opium. Opium contains the morphine molecule which was the starting point for chemical and pharmacological research to find a better analgesic, a theme of the exhibit.



The NIH Lecture will be on Thursday, Apr. 21, 1994, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker will be Dr. Patricia K. Donahoe, Massachusetts General Hospital. She will speak on "Regulation and Downstream Pathways of Growth Inhibitors."

JUNE

The NIH Lecture will be Wednesday, June 1, 1994, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker will be Dr. Mary-Claire King, a scientist at the University of California, Berkeley.

The NIH Cultural Lecture will be Wednesday, June 8, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker will be Jane Alexander, chairman of the National Endowment for the Arts.

The annual meeting of the NIH Alumni Association (NIHAA) will be held on Saturday, June 18, 1994. Invitations will be mailed to local chapter members in May.

SEPTEMBER

Research Festival '94

Sept. 19—NIH/NICHD Alumni Symposium on Monday morning from 8:45 to 12 noon in Masur Auditorium, Bldg. 10.

Sept. 19 and 20—Additional symposia, workshops and coordinated poster sessions.

Sept. 22 and 23—Technical Sales Association Scientific Equipment Show.

For more information about various lectures and events at NIH, call (301) 496-1766. For information about NIHAA call (301) 530-0567.

News From and About NIHAA Members, and Foreign Chapters

Dr. W. French Anderson, who was at NHLBI for 27 years, is now professor of biochemistry and pediatrics, and director of the Gene Therapy Laboratories at the University of Southern California. He was the subject of a feature essay in the Jan. 17 issue of *Time* magazine on "Genetics: The Future is Now."

Dr. Artrice Badger, a consultant in science management and review, was recently elected to the rank of AAAS Fellow (American Association for the Advancement of Science Fellows Forum). She was honored for "significant research contributions to electron microscopy of biological systems and for exemplary administration of biomedical research and training grants." She came to NIH in 1957 and retired in 1990.

Dr. David W. Bilheimer, formerly a staff associate in the Molecular Disease Branch, NHLBI, 1969-1973, was professor of medicine and associate dean for academic affairs at the University of Texas Southwestern Medical Center in Dallas. He has been named executive director for academic and professional affairs in the Human Health Division at Merck & Co., Inc. in West Point, Pa.

Dr. Gail H. Cassell, a member of study sections at NIH in bacteriology and mycology, is professor and chairman of the department of microbiology at the University of Alabama at Birmingham. She is cochairman with Dr. Paul Marks of the External Advisory Committee (EAC). This committee, established in response to a congressional mandate in the 1993 NIH Appropriations Bill to redefine the "role, size, and cost" of the Intramural Research Program, will make recom-

mendations to the NIH director in spring 1994. Other NIHAA members on the committee are Drs. Michael S. Brown, Gerald D. Fishbach, Elizabeth Neufeld, Maxine Singer, and P. Roy Vagelos.

Dr. Thomas C. Chalmers, director of the Clinical Center from 1970 to 1973, is a medical research consultant now living in West Lebanon, N.H. He recently wrote an editorial in the *Journal of the National Cancer Institute* on "Screening for Breast Cancer: What Should National Health Policy Be?"

Dr. Stanley N. Cohen, who was with the chemical/biological information handling review committee in the Division of Research Resources from 1970 to 1974, is professor of genetics at

Stanford University School of Medicine. He received, with Dr. Herbert W. Boyer, the 1993 Helmut Horten Research Award, a Swiss prize for "pioneering scientific performance in the use of gene technology in medicine." Their discoveries have provided the scientific underpinning of the biotechnology industry. The award, worth 1 million Swiss francs (\$700,000), is presented every 2 years by the Helmut Horten Foundation.

Dr. Rita R. Colwell, a member of a microbiology training committee at NIGMS from 1970 until 1973 as well as other advisory councils of NIH, is now president of the Maryland Biotechnology Institute at the University of Maryland. In December 1993, she was elected president of the



Two NIHAA members on hand for their installment last Oct. 14, as life members of the founders' board of the Children's Inn are (from l) former NIH director Dr. James Wyngaarden; former NIH associate director for administration, Calvin B. Baldwin, Jr.; and operations manager for the Inn, Margo Bradford. Other NIHAA'ers named to the board (the inn's highest honor) are George Russell, Jr., and Dr. P. Roy Vagelos. Members of the founder's board continue their involvement in the inn's activities by serving as a consultative, advising and counseling forum.

American Association for the Advancement of Science. She became president-elect of AAAS on Feb. 24, 1994, following the group's annual meeting, then president in 1995 and chair of the board of directors in 1996.

Dr. Deborah J. Cotton, a clinical associate in NIAID's Laboratory of Clinical Investigation from 1978 to 1984, and also a medical staff fellow at NCI in the Pediatric Branch, is now assistant professor in the department of health policy and management at the Harvard School of Public Health. She is also at the Harvard Medical School and has recently been named to an 18-member panel of scientists, doctors and advocates for AIDS patients to help speed the search for new drugs to fight the AIDS virus.

Dr. David A. DeBoer, a medical staff fellow in the Surgery Branch at NHLBI, has finished his residency in general surgery at Vanderbilt University Medical Center, and begun a fellowship in cardiothoracic surgery at the University of Pennsylvania.

Dr. R. Bruce Donoff, Guralnick professor and chairman of the department of oral and maxillofacial surgery and dean of the Harvard School of Dental Medicine, has been awarded the 1993 William J. Gies Foundation Award in Oral and Maxillofacial Surgery. He was honored for his many contributions to education and research in his specialty.

Dr. Roger O. Egeberg, a senior scholar-in-residence at the National Library of Medicine, and a member of NIHAA's board of contributing editors, has a paperback edition now available of his book *The General: MacArthur and the Man He Called "Doc."* He was MacArthur's doctor throughout the Philippine campaigns and gives his per-

sonal recollections of the time and of MacArthur.

William H. Goldwater, who began working at NIH in 1959, writes that "I retired from NIH on July 23, 1993, after 41 1/2 years with the Federal government, the past 34 at NIH. In my more recent years I headed the office responsible for developing and implementing NIH extramural program and review management policies and procedures...protection of research subjects, freedom and confidentiality of information, and standards of conduct and conflicts of interest in program management. Now on a more self-inflicted schedule, I look forward to being able to supply some of those talents and expertise to consultation with agency and performer institutions."

Dr. DeWitt S. Goodman, who died in November 1991, was posthumously honored by the College of Physicians and Surgeons at Columbia University

with the establishment of the DeWitt S. Goodman Fellowship in Preventive Medicine. The fellowship will stand "as a perpetual testament to the values Dr. Goodman shared with others throughout his life and work." Goodman, who was at NIH from 1956-58 and 1960-62 in NHI's Laboratory of Metabolism Investigation, was Tilden-Weger-Bieler professor of preventive medicine at Columbia.

Dr. Maxwell Gordon, who held a NIH predoctoral fellowship from 1946 to 1948 and a postdoctoral fellowship in Zurich from 1948 to 1949, writes that he "has been named president and chief executive officer of Aji-Pharma USA, Inc. Previously he was the CEO of another Ajinomoto subsidiary, and prior to that was a senior vice president of the Bristol-Myers Co. in the science and technology group. Aji-Pharma USA, Inc., is the U.S. pharmaceutical R&D arm of the Ajinomoto Co., Inc. of Tokyo, Japan."

(See *Members* p. 10)



Standing in the courtyard of the Howard Hughes Medical Institute are Dr. Joseph Perpich, a former NIH'er, now vice president for grants and special programs at Howard Hughes and Gertrude Kelly, another former NIH'er, who is editor of grants publications. The Institute hosted more than 100 NIHAA members and guests at a enjoyable and informative tour of the facility last Oct. 9.

Members (continued from p. 9)

Dr. Edgar Haber, an NIH Fellow from 1958 to 1962, now Elkan R. Blout professor of biological sciences, director of the division of biological sciences, and director of the Center for the Prevention of Cardiovascular Disease at the Harvard School of Public Health, has been awarded the 1993 Gold Medal for Excellence in Clinical Medicine by the Alumni Association of the College of Physicians and Surgeons of Columbia University.

Dr. Ronald Herberman, who was at NCI from 1966-85, is now director of the Pittsburgh Cancer Institute and professor of medicine and pathology at the University of Pittsburgh School of Medicine. He has been named the first Hillman professor of oncology. The endowed professorship was created by a grant from the Pittsburgh-based Hillman Company.

Edith Jones, who died in June 1993, was honored with the establishment of the Edith Jones Scholarship for Clinical Center Dietetic Interns. The scholarship, established by the District of Columbia Dietetic Association, honors Jones, who was the Clinical Center's first Nutrition Department chief. She served in that position from 1953 until her retirement 30 years later.

Dr. Allen P. Kaplan, who was a clinical associate at NIAMD from 1967 to 1969, and then head of the allergic diseases section, Laboratory of Clinical Investigation, NIAMD, is currently chairman, at SUNY-Stony Brook and past president, American Academy of Allergy and Immunology and the Clinical Immunology Society. His research "includes studies of endothelial cell receptors for proteins of the plasma bradykinin-forming cascade and assessment of the functions of

chemokines as mediators of the allergic late phase reaction and relationship to 'histamine releasing factors.' Have spent 26 years studying the molecular mechanisms of generation of permeability factors such as bradykinin and histamine."

Thomas J. Kean, deputy director of the AMC Cancer Center, Denver, was honored recently by the National

Cancer Institute when he was presented the 1993 Marion Morra Award, recognizing "exceptional and long-term dedication to the Cancer



Information Service." Kean was honored for contributions that span 15 years, including the development in the mid-1970's of an evaluation scheme for the Cancer Information Service, later service at NCI as project manager of the program, and more recently leading a management study team whose recommendations led to the recent full regionalization of the CIS.

Dr. Hussein M. Khaled is secretary general of the NIHAA chapter in Egypt. He writes that they have official approval;



they are named NIH-EA; they have elected a board of directors with Dr. Mohamed Nabil El Bolkainy as chairman; they are planning a fundraiser; and they have a logo.

Dr. Mark Levinthal, a senior staff fellow in the Laboratory of Molecular Biology, NIAMD, from 1968-1972, is in the department of biological science at Purdue University. He spent the 1991-1992 academic year in the laboratory of Antoine Danchin at the Institut Pasteur. He also visited Prof. Danchin's laboratory in the summer of 1993.

Dr. Gregory O'Connor, who was at NCI from 1960 to 1973 as a research scientist; 1973-1978 as a senior investigator, Laboratory of Pathology; 1982-1983 as associate director, NCI (International Affairs); 1978-1981, as director, Division of Cancer Cause and Prevention; and from 1983-1985 on assignment from NCI as a special assistant to the Director at the International Agency for Cancer Research, writes, "In 1986, after serving as consultant to the International Agency, I joined the faculty at Loyola University Medical Center in Illinois as professor of pathology and was awarded the Galvin chair in pathology. In 1993, I retired as professor emeritus and returned to NCI as a special volunteer in the laboratory of Dr. Ian McGrath."

Dr. John Parascandola, Public Health Service historian and former chief of the National Library of Medicine's History of Medicine Division, is the author of *The Development of American Pharmacology: John J. Abel and the Shaping of a Discipline*. Published by the Johns Hopkins University Press late in 1992, the book examines the emergence of pharmacology as a discipline in the United States in the late nineteenth and early twentieth centuries. In a chapter on the development of pharmacology in government and industry, Parascandola discusses the early history of the science at NIH.

Dr. Seymour Perry, whose last three positions at NIH were deputy director, Division of Cancer Chemotherapy, NCI, 1973-74; special assistant to NIH director, 1974-78; and associate director, Medical Applications of Research, 1978-80, writes: "After ten years at the Georgetown University School of Medicine, I have recently taken a part-time position as senior scholar at the Medical Technology and Practice Patterns Institute (MTPPI) in Washington, a nonprofit health policy and health services research group. I have relinquished the chairmanship of the department of community and family medicine at Georgetown but remain part-time as professor and director of the program on technology and health care."

Dr. John C. Petricciani, who was in the Office for Protection from Research Risks, OD, from 1968-1985, joined the Genetics Institute, Cambridge, Mass., in 1992 as vice president for regulatory and government affairs. He continues to advise WHO on biological issues.

Dr. Jack S. Remington, a member of the first cadre of NIH research fellows in 1957, is now chairman of the department of immunology and infectious diseases, Stanford University. On Nov. 22, 1993, he delivered the Gorgas Memorial/Leon Jacobs Lecture entitled "Toxoplasmosis, AIDS, and What Leon Jacobs Taught Me."

Dr. Jesse Roth is professor of medicine at Johns Hopkins University School of Medicine where he holds the Raymond and Anna Lublin chair and is director of the school's Division of Geriatric Medicine and Gerontology. He has received from the American Diabetes Association the Albert Rentold Award, which recognizes outstanding achievement in the training of diabetes

research scientists or the facilitation of diabetes research by diabetes investigators. He retired from NIH in 1991, having spent the previous 27 years there including a stint as chief of the diabetes section, Clinical Endocrinology Branch, NIDDK; chief of the Diabetes Branch, NIDDK; and director, Division of Intramural Research. In the late 1960's, he and his colleagues at NIH showed that circulating insulin is not a uniform entity, but takes several forms. His later work on hormone receptors brought about a new way of comprehending the action of hormones on target cells. He also contributed significantly to the understanding of how the endocrine system regulates itself through feedback loops.

Dr. John C. Ruckdeschel, a staff

associate at NCI from 1972 to 1975, and a visiting scientist 1983-84, is the director and chief executive officer of the H. Lee Moffitt Cancer Center and Research Institute in Tampa. The Moffitt Cancer Center is a free-standing teaching affiliate of the University of South Florida Health Sciences Center. Moffitt has a goal of becoming a National Cancer Institute comprehensive center.



(Continued on p. 12)



The first Christian B. Anfinsen Lecture took place last Nov. 14, in the Ebner Auditorium of the Weizmann Institute of Science in Rehovot, Israel. Shown are (from l) Dr. Christian B. Anfinsen; Dr. Sara Fuchs, founding member of the new Israeli chapter of NIHA; Dr. Ira Pastan, lecturer; and Dr. Michael Sela, also a founding member of the new chapter which was inaugurated at the meeting. Pastan spoke on "Recombinant Immunotoxins: New Agents for Cancer Therapy." Fuchs reports that the lecture was very well received by the audience of 250, most of them NIH alumni. In the next issue of NIHA Update there will be an article about the Israeli chapter by Drs. Sela and Fuchs.

(Continued from p. 11)

Randy Schools, the general manager of the R&W at NIH, recently received from the Children's Oncology Camps of America (COCA) its annual "Spirit of COCA Award." The honor is presented to a volunteer who has helped



advance camping programs for children with cancer. Schools was recognized for his work with Camp Fantastic, based in Winchester, Va. Shown above with camper Josh Soth, he was involved in the original planning of the summer camp program and recently served as president of Special Love, Inc., which sponsors Camp Fantastic.

Dr. Michael A. Schwartz, who was in the Laboratory of Clinical Psychopathology, NIMH, as a clinical associate in 1972-74, has recently moved to Ohio as professor and vice chairman, Office of Education, in the department of psychiatry at Case Western Reserve University. The chairman is Dr. Charles Schulz, an NIMH alumni.

Dr. Alan Solomon, director of the Human Immunology and Cancer Program at the University of Tennessee Medical Center has joined the board of

scientific counselors of the Division of Cancer Biology, Diagnosis and Centers at the National Cancer Institute. Solomon says he is pleased to accept the appointment and sees it as a benefit to his medical center. "We are notified of all legislative matters which pertain to cancer research. This will be a lot of work, but it is an exciting opportunity."

Dr. Heinz Specht, whose NIH career first began in September 1936 when he was hired to work at the Industrial Hygienic Laboratory at 25th and E and ended when he retired in 1971 as a special assistant to the director of the Fogarty International Center, now lives in Sykesville, Md.

Dr. Gordon Wallace, at NIAID from 1960-86, reports that the Light Visor™, the principal product developed and marketed by the company he founded in 1989, Bio-Brite Inc., was featured in an episode of the popular TV program "Northern Exposure" on Mar. 7. The Light Visor, a portable light dosage system developed to deliver bright light for the treatment of Seasonal Affective Disorder (winter depression), is the result of technology transfer from NIH and Jefferson Medical College. Other visor applications include sleep disorders, night-shift worker disorders, and jet lag.

Dr. Herbert S. Waxman, at NIH from 1964 to 1966 as a research associate in NCI's Laboratory of Physiology, is currently chairman, department of medicine, Albert Einstein Medical Center in Philadelphia and senior associate chair, department of medicine, Temple University School of Medicine. He is also president of the Association of Program Directors in Internal Medicine.

Dr. Nancy Wexler, a health scientist administrator with NINDS from 1976 to 1983, is professor of clinical neuropsychology in the departments of neurology and psychiatry of the College of Physicians and Surgeons,

Columbia University. She received the Albert Lasker Medical Research Award in



October 1993 for her global research effort that led to discovery last March of the gene that causes Huntington's disease.

Dr. Kathryn C. Zoon, who was in the Laboratory of Chemical Biology, NIAMDD, from 1975 to 1980, as a postdoc and staff and senior fellow, is



the director of FDA's Center for Biologics Evaluation and Research. She delivered the NIH Lecture on Mar. 24, 1994. Her topic was "Human Interferon Alphas: The Legend and the Legacy."

President's Letter

Fiscal solvency, as ever, continues to threaten the survival of our association. Despite generous voluntary service on the part of about 40-50 local members, needs for cold cash are inescapable: salaries for our two devoted and overworked part-time staff, printing and mailing costs, telephone and fax service, etc.

Nothing's inexpensive these days. Romeo and Juliet at the National Shakespeare Theater went for \$72 a brace. Dinner, without wine in a modest little bistro added another \$48. A day on the lifts at Snowbird will put me out-of-pocket \$38 next week. For an aging alum, with better recall of his teens than of last year—8¢ a loaf bread, 13¢ a quart milk and 9¢ a gallon gasoline—the rise in prices is astonishing. (There's no longer even a symbol for cents on my keyboard!) Thus, with an average membership of circa 1000 @ \$25 per, the operating budget does limit opportunities. Moreover, the annual membership fee looks like a really big bargain.

There are several things each of you could do that would be helpful.

- Renew on first notice.

- Identify non-member fellow alumni.

Odd as it may seem, the NIH has very poor records of the people who have worked here, virtually no information on the current whereabouts of those on whom it does have a record, and is prohibited by the Privacy Act from making the information available to the NIHAA. If each member could recruit another, the operating budget would double!

- Consider sweetening your renewal with a modest "supplemental." This might be most appropriate for the life members, who were shrewd to recognize a truly good bargain.

I'm so sorry to have to raise the issue of money. But given the state of the NIHAA's exchequer, the alternatives to this pleading are few and none could be deemed pleasant to contemplate.

Attention

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update* at 9101 Old Georgetown Rd., Bethesda, Md. 20814

Name

Home Phone

Home address

News, include dates/position at NIH and photo if possible

Suggestions for newsletter

Suggestions for NIHAA

Notes from Two NIHAA Committee Chairs

The Historical Committee

By Dr. Leon Jacobs

The historical committee of the NIHAA solicits the cooperation of the members of the association and invited additional members who are devoting a fair amount of time and effort to the recording of items of NIH history which may otherwise be lost.

Dr. Leon Jacobs

Current membership of the committee is as follows: Leon Jacobs, chair; B.H. Morrison, Paul Q. Peterson, Richard L. Seggel, Emma Shelton, Helen Schroeder, Marvin Schneiderman, and John P. Utz. Members of an earlier committee are Jack Davidson, Herman Kraybill and Lewis Sargent.

The historical committee has met several times and has had, as additional members, Victoria Harden, NIH historian, and Harriet Greenwald, NIHAA executive director and editor of *NIHAA Update*. The committee has discussed the number of projects that it can undertake and how it can interact with, and supplement, the efforts of the NIH Historical Office and the DeWitt Stetten, Jr. Museum.

One thing that members can do to help is to apprise the NIH Historical Office of old documents or papers that may be of significance. At the moment, we are interested in old NIH telephone books in use before 1954, and in Scientific Directories and Bibliographies for years prior to 1959. If any of you have the kind of "squirreling" instincts that

may have resulted in the saving of such memorabilia, we would love to have them for the NIH collection.

Another thing in which we are particularly interested is a photographic history of NIH. Biography is a principal part of history; so photographs of former scientific and administrative staff at the NIH would be very welcome. It is very important, if you have such items to contribute, to identify the individuals in the photos and to date and provide information about the place or the occasion when the photo was taken. We will be happy to credit the contributions to the donors who have sent them in. In the long run, we hope to have space to exhibit them on the walls of the various buildings in the huge complex of Federal style buildings and architectural monstrosities that now adorn the campus in Bethesda.

Please remember that we welcome your active participation as members of the NIHAA historical committee or as volunteers for particular projects.

The Membership Committee

By Dr. Thomas Malone

The current membership of the NIH Alumni Association stands at about 1,750. A recent tabulation from Richard Drury in the Systems and Actions Branch, Division of Personnel Management, NIH, shows that during the last 10 years there have been more than 36,000 separations from the NIH, or a turnover of over 21 percent each year. The total number of living NIH alumni could easily exceed 50,000. The current NIHAA membership does not approach a desirable fraction of those who have retired from NIH. Building upon past efforts, the individual membership committee (IMC) has the sim-

ple but difficult mission of not only developing initiatives to increase membership but also suggesting ways those who join will want to continue their membership.

Members of the IMC presently include: Thomas Malone, chair; Belia L. Ceja, Philip Chen, Richard A. Drury,



Dr. Thomas Malone

Sol Eskanazi, Zora Griffo, Alan Moore, Randy Schools, Emma Shelton, and Harriet Greenwald, *ex officio*. During the several meetings held, the committee

has identified a number of initiatives that are being pursued by committee members in accord with their interest and expertise. High priority items include: producing a directory of NIHAA membership; working with NIH to develop a tracking system for retired employees and workforce statistics; exploring the possibility of including information about NIHAA in materials given to all NIH employees upon departure; presenting information about the NIHAA at various meetings; and developing articles and publicity for newspapers and journals.

While pursuing these and other initiatives, the IMC has asked each of its members and all members of the NIHAA board of directors to contact personally colleagues and friends who have retired from NIH and invite them to join. Early indications are that this will be a successful undertaking.

Readers of *NIHAA Update* are invited to contact members of the IMC or write to the NIHAA office to submit ideas and suggestions for increasing and retaining membership.

Varmus (continued from p. 1)

Throughout his brilliant career he has demonstrated his extraordinary commitment to scientific excellence. He has the vision and skill to lead this nation's biomedical research into the 21st century. We look forward to working closely with him."

Sen. Nancy Kassebaum (R-Kan.) called NIH "one of our most important institutions, one of the real guiding lights in this nation. I can't think of anyone more distinguished to lead it than Dr. Varmus."

"He is the first Nobel laureate to lead NIH, but more importantly he is a wonderful blend of scientific inquiry, a probing mind and also great compassion and enthusiasm for the job ahead. With a graduate degree in 17th century English poetry as well as his medical training, he has a nice blend of skills that will help him keep perspective."

Sen. Paul Simon (D-Ill.) advised Varmus that Congress, too, will be looking to him for direction: "You are going to have to say to Sen. Kennedy, and to Sen. Kassebaum, and to Sen. (Paul) Wellstone, 'This is important, this is where NIH funding should go.' Sometimes that's not easy."

Said Wellstone (D-Minn.), "Above and beyond his brilliant background and impressive resume, Dr. Varmus has a great sensitivity and openness to people. I'm just delighted with his nomination."

Sen. Barbara Mikulski (D-Md.) told Varmus, "I'm the senator of NIH and for NIH, and I will be particularly interested in working with you to reinvent the NIH for the 21st century. This is an era of new science, new attitudes and new resources...we are concerned sometimes that NIH might be adrift. I know you've won one Nobel Prize, but we're looking to give you a prize for

reinventing NIH."

Varmus was joined at the witness table by Sen. Barbara Boxer (D-Calif.) and by Rep. Nancy Pelosi (D-Calif.), who carried not only their own endorsements but also those of Sen. Diane Feinstein (D-Calif.), who could not attend.

"Dr. Varmus is truly a remarkable man," said Boxer. "He is a Renaissance man for our times."

Added Pelosi, "I can testify that (Varmus) is a very effective advocate for biomedical research and for his own point of view."

Varmus then gave his opening statement (see excerpt), first introducing his family to the panel.

The question period began with an inquiry by Kennedy on how best to speed the fruits of basic research to the bedside.

"In the last 5 years, this kind of transfer has occurred mainly in the area of human genome studies," answered Varmus. "This is a field known by the buzzword 'molecular medicine.' There is no doubt that we need to train more people who have the ability to take research from the bench to the bedside. As this field matures, NIH will play a major role in making benefits available to patients."

Kennedy then mentioned a list of Senate concerns that he hoped Varmus would address, including allegations of racial discrimination at NIH, a need for focus in the fields of substance abuse research and mental health, reorganization of NIH's Office of AIDS Research (OAR), attention to rehabilitation medicine and the needs of people with disabilities, and lastly the FIAU drug trial that went amiss last summer.

"This committee has been deeply saddened to learn of the deaths of 5 of the 15 patients in that trial," said

Kennedy.

The questions got tougher as Kassebaum took the floor. "The director of NIH has somewhat limited powers...how do you plan to strengthen that role?"

Varmus said that he has held discussions with HHS Secretary Shalala and PHS director Dr. Philip Lee, who agree that the NIH director must have more authority to make appointments at salaries commensurate with those offered at leading academic institutions. Varmus also said that, as director, he would coordinate trans-institute research activities on campus. "These initiatives can be guided by leadership from the director's office," he said.

Kassebaum then asked if controversial studies at George Washington University involving attempts to clone human embryos called for establishment of an ethics oversight board.

"Those studies represent a relatively small advance scientifically—it has been done in animals for years—but the research raises ethical issues that we need to confront," answered Varmus.

He said he has received permission from HHS to establish a subcommittee of the NIH advisory committee to the director to examine the ethics of research.

Simon then recounted details, none of which he expected Varmus to know, of a bureaucratic snafu holding up progress in a small drug trial for patients with a urea cycle disorder. Varmus astonished and impressed Simon with his knowledge of the case, and how to solve it.

Declaring that mental health research is underfunded, Simon then asked Varmus for a letter, due within 60 days, analyzing what areas are most worthy of research in this area.

(Continued on p. 16)

(Continued from p. 15)

Next up was Sen. Dan Coats (R-Ind.), who threw a fastball at Varmus's chin: Quoting a publication called *The Prune Book*, which details requirements for the top federal jobs in Washington, Coats emphasized the need for administrative experience in the NIH director's post. "How does an individual with a love for literature and the laboratory handle the daunting task of administering a major national institution, filled with political intrigue and daily inundated with requests from senators and congressmen? It seems comparable to taking a politician out of the lights of the TV cameras and putting him in the lab where he's expected to make discoveries. I can't imagine any politician surviving in that atmosphere."

Varmus explained that, as American Cancer Society research professor at UCSF, he was excluded from deanships and other administrative posts that would have taken him away from research and teaching. "But I am no stranger to the issues confronting NIH involving research integrity, indirect costs, appropriations and the like. I've been in the thick of many of the battles."

Through his participation in the National Research Council, Varmus said he has further been exposed to the issues. "Though I haven't had the (administrative) titles, I have had the experience. Also, I do have a big team of accomplished deputy and associate directors. My goal is to have excellent relations with them."

Varmus said he is well versed in NIH's pressing problems, among them the allegations of discrimination on campus, the need to organize OAR, and to address the deterioration of the Clinical Center and almost half of the

aging labs on campus. "These require my attention and I will give it to them," he declared.

"You are going to need a lot of steel to resist the enormous pressures," warned Coats.

Coats' last question involved the balance in NIH's portfolio of directed versus undirected research. Answered Varmus, "My concern is to protect the basic research enterprise, along with the areas that have been targeted by Congress."

When it came her time to query Varmus, Mikulski first acknowledged the accomplishments of NIH deputy director Dr. Ruth Kirschstein, who was in the hearing room. "The committee should know that she has done an extremely good job running NIH and helping Harold Varmus with the transition. We owe her an enormous debt of gratitude."

Said Varmus, "To my great pleasure, Dr. Kirschstein will remain as deputy director of NIH and will be working with me hand in hand."

"We want you on the scene, to make sure the President's budget is really robust for NIH," Mikulski told Varmus. "I want you to be sure to pull out your green eyeshades when it comes time to look at the budget."

Mikulski asked Varmus to peer 6 months, 1 year and 3 years into the future "so we get a sense of your navigational chart for NIH," at which point Varmus catalogued the priorities mentioned earlier. When Mikulski made passing reference to the strategic plan crafted by former director Dr. Bernadine Healy, Varmus endorsed the process of thinking about future planning in concert with authorities from extramural NIH, but distanced himself from publishing any bible: "The recommendations that you come up with

are often out of date by the time they're in print."

Wellstone, decrying stingy funding for biomedical science—which he said "pays for itself over and over and over again"—confided that both his parents suffered from Parkinson's disease, and asked Varmus why funding for research into this illness is comparatively low.

Varmus used the opportunity to explain that much basic research, while lacking a disease-specific title, nonetheless offers hope for treating diseases such as Parkinson's.

"There is an enormous amount of research being done on how cells talk to each other. It might not be labeled 'Parkinson's disease research,' but it has applications to that disease of the basal ganglia."

As Wellstone continued, Mikulski stepped down into the gallery to offer personal congratulations to Kirschstein.

Wellstone's last question involved environmental causes of disease.

Responded Varmus, "We have a whole institute dedicated specifically to such questions, the National Institute of Environmental Health Sciences. Other institutes as well are looking into environmental contaminant etiology in a variety of diseases."

Wrapping up the hearing, Kennedy counseled Varmus not to fret too much about his dearth of formal administrative titles:

"I sympathize with you. It's like when a governor runs for president. Everybody says he has no foreign policy experience. Or when someone runs for senator. People say you lack managerial experience. My experience is that these things shake out around the time of the first primary."

Kennedy asked Varmus to look into the tricky area of crafting pay scales

sufficient to attract the best people into government service, then ended by welcoming Varmus' wife, who, he pointed out with pride, was born in Boston.

"Her father, Joseph E. Casey, was a congressman who once ran against Henry Cabot Lodge. We remember well her father's service to the state and to Congress."

The Senate committee approved Varmus as next NIH director by voice vote early Saturday morning, Nov. 20. Varmus was sworn in by HHS Secretary Donna Shalala in a private ceremony on Nov. 23 in her office.

Excerpt from Dr. Varmus' Statement to the Senate About NIH 1968-1970

"...I began Columbia Medical

School fascinated with the brain, intending to practice neurology or psychiatry; a new interest in tropical health brought me to a mission hospital in India; by the time of my residency, I thought I had settled on the practice of internal medicine.

The NIH then pointed me in a new direction, when I served as a Public Health Service officer at the NIH campus in Bethesda. My mentor, Ira Pastan, showed me how to use a simple model organism—the bacterium, *E. coli*—to understand a complex phenomenon, hormone action. This experience converted me to an enthusiastic bench scientist, so I sought further research training and then work as a professor in a basic science department of the medical school at UCSF. In this new setting, I used another kind of sim-

ple microbe, a retrovirus, to study the genetic basis of cancer and the way genes behave in animal cells.

Although I left Bethesda in 1970, I did not leave the NIH. As a new faculty member, a large part of my salary was paid by an NIH Career Development Award, and for over 20 years most of my laboratory's work—like that of most university labs—has been financed by grants from the NIH. I have been fortunate. With NIH funding I have worked unimpeded by anything other than my own limitations.

I have known the joys of discovery, nurtured brilliant students, and received public accolades for work that was largely an act of love. The indebtedness I feel towards the NIH is one of the reasons I am sitting before you today..."



NIAMD - CLINICAL INVESTIGATIONS - DECEMBER, 1968

- ROW 1: PERRIER, LASTER, DECKER, ROBBINS, RALL, GORDON, WHEDON, di SANT'AGNESE, SHULMAN, AURBACH, ROSEN, THOMPSON, EDELHOCH.
- ROW 2: GOETZL, SCHULMAN, GORDEN, PASTAN, KALTREIDER, TALAL, METZGER, STEINBERG, WOLFE, BILSTAD, BROWN, PERLMAN, ASHMAN.
- ROW 3: ASKENASE, GREENE, WEISSMAN, PALLAVICINI, CAHNMANN, PAGES, ROBERTSON, CHASE, MELSON, DIBBINS, LEFKOWITZ, SHERMAN, GARDNER.
- ROW 4: FUJIMOTO, ITSCHOLTZ, MARCHESI, LAPEY, BOAT, LEVY, A. WEINTRAUB, HIRSCHMAN, MALAN, SCHNEIDER, WILLERSON, STAPLES, VARMUS, BOYLE, DESBUQUOIS.
- ABSENT: BERNSTEIN, KAPLAN, LEWALLEN, LOEB, MARCUS, ROTH, SEEGMILLER, VARRONE, B. WEINTRAUB, WOLFE.

Science Research Updates in Prevention

NIA Study Shows Exercise Keeps Arteries Younger Longer

Physicians recommend putting your best foot forward to save your heart by jogging, running, walking, swimming, dancing or performing some other aerobic exercise at least three times per week. According to scientists at NIA, regular exercise may greatly reduce stiffening of the arteries, a primary cause of high blood pressure that can lead to heart disease and strokes in older people.

Scientists believed that arterial stiffening was an inevitable burden of aging, but it is clear now that physical conditioning may slow this process considerably. In the October 1993 issue of *Circulation*, Dr. Edward Lakatta and his colleagues at NIA's Gerontology Research Center, in collaboration with the University of Maryland School of Medicine and the Johns Hopkins Medical Institutions, report that arterial stiffening occurs in varying degrees among older individuals, even healthy ones with no hypertension. However, among those who exercise regularly, the occurrence of arterial stiffening is consistently far less severe.

"In all our sedentary subjects, the more they are able to exercise, the less stiff their arteries," said Lakatta.

"If simple exercise can reduce arterial stiffening, then we can look to lifestyle changes to reduce illness and deaths, to better the quality of life and lower cardiovascular health care costs. The benefits would be tremendous," says Dr. Richard Hodes, NIA director.

The study consisted of two parts. In the first part, the scientists studied 146 healthy, nonsmoking, sedentary volunteers, ages 21 to 96, during a treadmill test. The treadmill increased in speed every 2 minutes until the volunteer was

exhausted. Those individuals who could exercise longer had less stiffening of their arteries. This effect was over and above age effects.

In the second part of the study, the scientists compared 14 endurance athletes, age 54 years and older, to the sedentary individuals of the same age, and to younger sedentary volunteers. The exercise capacity of the older athletes was similar to young people but greatly surpassed the older sedentary group. The major finding here was that, in older athletes, there was far less arterial stiffness than in sedentary older people.

According to Lakatta, "This demonstrates that endurance training may give us at least some control over the condition of our arteries, a variable we thought controlled us. The next step is to discover whether mild exercise could have a similar effect."

The study shows too that over time, changes in arterial stiffness are much more marked than changes in blood pressure. "Blood pressure measures alone may deceive us into thinking our arteries really aren't all that stiff," explains Lakatta, "when in fact, the situation can be quite serious."

Measuring arterial stiffness gives a more complete picture of arterial health than does measuring blood pressure alone. And, as heart disease and stroke are leading killers of both men and women, scientists hope that eventually arterial stiffness will become a reliable prognostic tool.

Ethnic and genetic differences, body weight, and dietary habits also influence how much arteries will stiffen. A study in China, for instance, showed a considerable difference in measures of arterial stiffness between people living in rural and urban areas. City-dwellers tend to be more sedentary and to salt their food generously and to have

alarmingly high incidence of hypertension when compared to country folk, most of whom remain physically active as farmers.

For now, it appears that exercise may help overcome the ravages of time as far as arterial circulation is concerned. Researchers say, however, that even one's capacity to exercise may have some genetic link. Perhaps some people have more flexible vessels to begin with, enabling them to run faster and jump higher. NIA scientists hope to explore this relationship in further studies using training interventions.

NEI Researchers Report Treatment Lowers Risk of Developing Multiple Sclerosis

Over half of all people with first-time optic neuritis, a vision-impairing inflammation of the optic nerve, will eventually develop multiple sclerosis (MS).

But researchers report in the Dec. 8, 1993, issue of the *New England Journal of Medicine* that treating first-time optic neuritis patients with a combination of intravenous and oral corticosteroids lowers their risk of developing MS within the next two years.

MS is a debilitating disease of the central nervous system that affects as many as 500,000 Americans. This finding, based on a two-year patient followup from a large National Eye Institute-supported clinical trial, offers the first scientific evidence ever that intravenous corticosteroids help to delay the progression of MS. It also suggests that this treatment may provide similar benefits for people with not only optic neuritis, but other early symptoms of MS. "Based on this finding, doctors should strongly consider treating their optic neuritis patients with intravenous corticosteroids, even though this regimen has only a marginal impact on a patient's recovery of vision," said Dr. Roy Beck, chairman

of the Optic Neuritis Treatment Trial (ONTT) and a professor of ophthalmology and epidemiology at the University of South Florida.

"Optic neuritis is often an early sign of MS, and subsequent inflammations of the central nervous system may lead to increased disability," said Beck. "If future attacks of MS can be delayed or prevented with intravenous corticosteroids, patients may be able to maintain a higher quality of life."

In the ONTT, researchers evaluated 389 patients with optic neuritis who had no other clinical signs of MS when they entered the study.

Each patient was randomly assigned to one of three treatment groups: (1) high-dose intravenous methylprednisolone for three days followed by a lower dosage oral prednisone for 11 days, (2) oral prednisone for 14 days, and (3) oral placebo for 14 days.

The investigators found that within the first two years, MS developed in 7.5 percent of the intravenous group, 14.7 percent of the oral corticosteroid group, and 16.7 of the placebo group. The researchers also determined that the protective effect of intravenous therapy lessened after two years, suggesting the need for future studies on possible retreatment strategies. Beck stated that he and the other researchers were uncertain how the intravenous therapy slowed the onset of MS, in part because the exact cause of the disease is still unknown.

In addition, the ONTT confirmed previous reports from smaller studies that magnetic resonance imaging (MRI) brain scans can frequently help doctors detect asymptomatic brain lesions in optic neuritis patients that are related to early MS.

In the study, nearly 25 percent of patients with abnormal brain scans developed MS within two years compared to only 5 percent of those with

normal brain scans. The more abnormal the initial brain scan, the more likely a person was to develop MS.

Moreover, participants with abnormal brain scans benefitted most from the intravenous corticosteroids. Thirty-six percent of patients in the placebo group who had two or more brain lesions developed MS within two years compared to 16 percent of those in the intravenous group.

Because of this finding, the researchers stated that intravenous corticosteroid treatment may also benefit those with other early symptoms of MS.

"The ONTT is a good example of how the results from vision research can have an impact on a related medical discipline," said Dr. Carl Kupfer, director of NEI. "Since the eye provides nearly 40 percent of our sensory input to the brain, it provides an excellent opportunity to study many of the disorders that affect the brain."

Optic neuritis affects more than 25,000 Americans each year, primarily women between the ages of 18 and 45. Because studies show that at least half of the people who have an initial attack of optic neuritis will develop MS within 15 years, many physicians consider the disease to be a precursor of early manifestation of MS.

Optic neuritis causes pain and a rapid, often extreme, loss of vision. ONTT scientists reported previously that even without treatment, patients generally recover their vision after the first episode of the disease.

Patients treated with intravenous corticosteroids recovered their vision about two weeks sooner than those receiving a placebo, but this treatment provided them with no long-term visual benefit.

The researchers also found that oral corticosteroids alone are ineffective in treating optic neuritis, and that treatment with these drugs can actually

increase a person's risk for future attacks of optic neuritis.

NIH, Indian Researchers Shed Light on Cause of Shrimp Allergy

NIH and Indian researchers have identified two regions of a muscle protein found in shrimp that may trigger the adverse reactions suffered by shrimp-allergic people. The researchers also found similar regions in muscle proteins of other shellfish, which may explain why shrimp-allergic people are often allergic to lobster, crabs and other crustaceans as well.

"As we work to understand why certain foods cause allergies, a crucial goal is describing the specific parts, or epitopes, of food proteins that bind to the antibodies responsible for allergic reactions," says study investigator Dr. Dean D. Metcalfe, head of the mast cell physiology section in NIAID's Laboratory of Clinical Investigation. "Very few of these epitopes are currently known. Our characterization of such epitopes in a protein that causes shrimp allergy could eventually lead to ways of treating seafood-allergic patients employing immunotherapy."

In the United States, about 3 percent of children and 1 percent of adults have clinically proven allergic reactions to foods.

Among U.S. adults, the most common foods causing allergic reactions include shellfish such as shrimp, lobster and crab; peanuts; tree nuts such as walnuts; fish; and eggs. In children, the pattern is somewhat different; common food allergens are egg, milk and peanuts.

"The foods to which people react are the ones they eat most often," Metcalfe explains. "In Japan, for example, rice allergy is more often observed, and in Scandinavia, codfish allergy is common."

(Updates continue on p. 20)

(Continued from p. 19)

Chinese Cancer Prevention Studies Suggest Benefit From Vitamin/Mineral Supplements

One of two related randomized dietary intervention trials reported in the Sept. 15, 1993, issue of the *Journal of the National Cancer Institute* indicates that a specific vitamin/mineral supplement taken daily for 5 years reduced cancer incidence and mortality, as well as overall mortality, among residents of Linxian county in North-Central China.

This statistically significant finding comes from the larger of the two trials, reported by Dr. William Blot of NCI. The smaller study is reported by Dr. Jun-Yao Li, Cancer Institute, Chinese Academy of Medical Sciences, Beijing. Both trials tested for protective effects of vitamin/mineral combinations used to supplement a diet typically low in the intake of several vitamins and minerals.

The potential cancer-prevention benefits of vitamin/mineral supplementation may or may not be applicable in countries such as the United States, where there is much higher dietary consumption of these vitamins and minerals, say editorial writers Drs. Steven E. Benner and Waun K. Hong, both of the University of Texas M.D. Anderson Cancer Center.

The typical diet in Linxian County is low in fresh fruit, meat, and other animal products; diet staples include wheat, millet, sweet potatoes, and corn. Rates of esophageal and stomach cancer in this county are among the highest in the world, over 100 times U.S. rates and 10 times those of other areas of China.

In the study described by Blot et al., 29,584 Linxian residents aged 40 to 69, drawn from the general population, were randomly assigned to receive

daily, in the form of an individual oral tablet, one of seven vitamin/mineral supplement combinations (at one to two times the U.S. Recommended Daily Allowance—RDA) or a placebo for five and one-fourth years. Mortality and incidence were monitored for esophageal, gastric cardia (the upper stomach joining the esophagus), the remainder of the stomach, and other cancers. Among the group receiving a combination of beta carotene, vitamin E, and selenium, mortality from all causes was reduced by 9 percent, cancer deaths dropped by 13 percent, and stomach cancer deaths dropped by 21 percent (all reductions statistically significant). No statistically significant effect was found for any of the other supplements.

The second article by Li, et al., describes a smaller study of 3,318 Linxian residents aged 40-69 with esophageal dysplasia, a known precursor of esophageal cancer. Participants were randomly assigned to receive a daily supplement of 14 vitamins and 12 minerals (at two to three times the U.S. RDA) or a placebo for six years. Using the same methods as in the larger study, cancer incidence and deaths were monitored. A statistically nonsignificant decrease (8 percent) in esophageal/gastric cardia cancer deaths was observed; however, a more substantial decrease (38 percent) of borderline statistical significance in stroke and other cerebrovascular disease was found. The



A village square in Linxian, the rural county in north central China where these studies were conducted.

researchers speculate that the intervention may have come too late if individuals with dysplasia are less amenable to the potential benefit of nutrient supplementation. Further investigation of the cerebrovascular findings is warranted, they add.

In their JNCI editorial on the two studies, Benner and Hong point out that in the multistep process of epithelia cell cancer development (including esophageal and gastric tumors), it is believed genetic abnormalities accumulate over time; response to chemopreventive agents may decrease as genetic damage increases. This phenomenon may explain why cancer reduction was observed in the larger study of the general Linxian population, but not in those with esophageal dysplasia. Benner and Hong note that more chemoprevention studies are needed to establish dosages, define intermediate markers of efficacy that could shorten the length and cost of trials, and explore the implications for public health recommendations.

This material was compiled from various institute press releases.

Clinton (continued from p. 1)

Lee, assistant secretary for health; Lee and Varmus sported bright green lapel buttons reading, "Give 'Em Hell, Hillary!" On seeing the buttons, she remarked, "I like the buttons that say, 'Give 'Em Health, Hillary!'"

Clinton was met by a warm round of applause from an impromptu crowd that had gathered in the lobby. After signing her name in NIH's visitor's log, she asked, "How are you all?" and plunged into the crowd to shake hands with well-wishers. She then went upstairs in the hospital to receive briefings from what Varmus called "some of our most energized scientists." These included: Varmus himself, who gave an overview of what is expected to be the theme of 21st century health care—genetics and molecular biology; NCHGR director Dr. Francis Collins, who spoke on the Human Genome Program; Dr. Bert Vogelstein, a prominent cancer researcher from Johns Hopkins who talked about the recent discovery of the gene causing colon cancer; Drs. Cynthia Dunbar and Melissa Rosenfeld of NHLBI and NCI's Dr. Michael Blaese, who discussed gene therapy for cystic fibrosis, inherited severe combined immune deficiency, and other diseases; Dr. Anthony Fauci, NIAID director, who talked about the AIDS epidemic and NIH efforts combatting it; Dr. John Erickson of NCI, who discussed methods of drug design through structural biology; and Dr. George Uhl of NIDA, who described cell receptors for drugs of abuse.

Said Clinton of the science session, "I was only sorry that my daughter Chelsea couldn't be with me—she knows more about genetics than I do."

The first lady then embarked on a tour of Clinical Center patient care units where she met youngsters and adults with AIDS. She also met Ashanti

DeSilva, a 7-year-old from Ohio who has an immune deficiency disorder; in 1991, she was one of the first patients treated with gene therapy. The next stop was the NIH Library in Bldg. 10, where top staff in the Office of the Director and each ICD gathered to meet the first lady.

The speech that followed in Masur emphasized the link between basic biomedical research and the quality of life Americans enjoy today, including threats to that quality induced by a health care system that Clinton says thwarts the close connection that could potentially exist between bench research and the bedside.

Ironically, at the same time the United States enjoys "the finest doctors and researchers and scientists and hospitals and nurses in the world," she said, "we also have the stupidest financing system for health care in the world, and the stupidity of that system threatens the quality of all that you do and are engaged in doing to try to improve the health of both individuals and a nation."

Insurers currently have more incentive to screen people out of care than to include them, she maintained. The president's health initiative would not only extend insurance coverage to all Americans, even those enrolled in clinical trials, but also lead to greater investments in basic research.

"The president believes strongly in continued support for basic biomedical research," said Clinton. "He is committed to preserving the mission of academic health centers which, in years past, have been neglected, underfunded, and even unappreciated. The president intends to fix that."

One could almost sense NIH's suppressing, in the name of the decorum due a first lady, the urge to give that line a standing ovation; the event, open to ticket-bearers only, included

representatives of each ICD.

Clinton concluded by urging scientists to support her husband's health care reform package: "What we hope you will do is take a stand on behalf of improving the health care system in this country. Your voices will be heard loudly...because you have more credibility than the voices arrayed against us."

Varmus called Clinton a "powerful teacher" of health care reform, adding, "Your presence reaffirms the traditional alliance between basic research and advances in clinical treatment. I hope this is the first of many visits...We hope you will see us again—next time, bring your spouse."

The first lady then took a short ride down West Dr. to the Children's Inn at NIH, where she was greeted by Executive Director Bob Gray and his staff and given an update on the facility's mission by NCI Pediatric Branch chief Dr. Philip Pizzo. Clinton and Shalala sat on couches in the inn's main living room and heard the stories of parents and youngsters who have benefited from the inn. During these exchanges, 3-year-old Tyler Griffin of Portville, N.Y., an NICHD patient for the past 2 years, capered merrily in their midst, riding a rocking horse and thoroughly enjoying the media circus.



Tyler Griffin, 3, an NICHD patient from Portville, N. Y., who is staying at the Children's Inn, converses with the first lady.

DRG to Celebrate 50th Anniversary in 1996

In October 1993, the Division of Research Grants began preparations to commemorate its 50th anniversary in 1996. As part of its golden anniversary celebration, the division has commissioned the writing of a scholarly monograph on the history of peer review within DRG since 1946. The volume will be written by Dr. Richard Mandel (l), public historian, who is shown in the photograph below with Dr. Jerome Green (r), the division director.



Mandel is assisted by two former chiefs of the Referral and Review Branch, Drs. Misha Friedman and Samuel Schwartz, and by research assistant Mark H. Aiken.

The research will focus on peer review as an evolving mechanism of quality assurance in the grant selection process, highlighting such DRG leaders as Drs. Cassius J. Van Slyke and Ernest M. Allen. It will show how the Division's network of study sections has both reflected and stimulated the development of scientific advances, and how the Information System Branch has

managed the burgeoning information needs of NIH extramural programs. The book will include some of the scientific accomplishments of study section chairpersons and scientific review administrators, as well as a detailed chronology of initial review groups. In addition, the researchers will conduct an extensive series of oral history interviews with former DRG staff, some of which will be videotaped as a permanent record.

In-house archives have proved to be a rich source of new information on the history of DRG and NIH, as well as on the development of biomedical research fields. One recent find was an April 1955 letter from Sen. John F. Kennedy to NIH Director W. Henry Sebrell suggesting new appropriations to fund a backlog of approved but unpaid grant applications. Alumni who have artifacts or information to contribute to this undertaking should contact Mandel at Rm. 348B in the Westwood Bldg., 5333 Westbard Ave., Bethesda MD 20892, or at (301) 594-7072.

The NIH Office of Communications has recently set up an electronic Bulletin Board System, or BBS, called the NIH Information Center. Designed to provide students, medical professionals, reporters, science writers and members of the public with information about the NIH and its research, it currently holds more than 200 files. Most of the files are public information documents; however, image files are included. For example, one image file shows the construction of Bldgs. 1, 2, and 3 in 1938.

If you have a computer, a modem, and communications software you can dial into this BBS. The data-line number is (301) 480-5144. Set your communications software to 8 databits, 1 stop bit, and set parity to N (none). Modem speed can be as high as 9600 baud.

Dennis Rodrigues, who works in the DeWitt Stetten, Jr., Museum of Medical Research, developed this board.

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NIH Notes — August 1993 to February 1994

AWARDS AND HONORS

Drs. Adriaan Bax and G. Marius Clore, chiefs of the biophysical NMR spectroscopy section and the protein NMR section, respectively, in NIDDK's Laboratory of Chemical Physics, have been named joint recipients of the 1993 Young Investigator's Award by the Protein Society for their groundbreaking work in the area of protein nuclear magnetic resonance ... **Dr. Gabriel Bialy**, special assistant, Center for Population Research, NICHD, was recently presented with the Endocrine Society's Sidney H. Ingbar Distinguished Service Award in recognition of his effort, during his nearly 20 years as chief of the Contraceptive Development Branch, NICHD, to provide standardized reagents to the endocrine community for research in reproductive biology ... **Michael Blayney**, coordinator of training and education programs for Occupational Safety and Health Branch, Division of Safety, was honored by the American Biological Safety Association with its Robert I. Gross Memorial Award ... **Leo F. Buscher, Jr.**, NCI grants management officer, was presented with the National Grants Management Association's Robert Newton Lifetime Achievement Award for his "strong record of achievements in grants management" ... **Dr. R. Daniel Camerini-Otero**, chief of NIDDK's Genetics and Biochemistry Branch, has been awarded the 1993 Gerald D. Aurbach Lectureship by the Endocrine Society in recognition of his outstanding contributions to basic research. He delivered the honorary lecture on "Homologous Recombination, Recombination Proteins, and DNA Triplexes" ... **Dr. Bruce A. Chabner**, director of NCI's Division of Cancer Treatment, received the 1993 Steven C. Beering Award for Advancement of Biomedical Science which was presented by Indiana University. The prize recognizes an individual for "internationally recognized contributions to the advancement of biomedical or clinical science" ... **Dr. Robert M. Chanock**, chief of the Laboratory of Infectious Diseases, NIAID, recently received the third annual Bristol-Myers Squibb Award for Distinguished Achievement in Infectious Disease Research, which consists of a medal and \$50,000. The

award recognizes his outstanding contributions to fundamental research on human viral infections and his work on vaccine development. In 1956, Chanock was the first to isolate respiratory syncytial virus (RSV) from infants with severe lower respiratory tract disease. This virus was later shown to be the most common cause of serious viral lung disease in infants and young children worldwide. He has devoted 40 years to developing means for control and treatment of RSV ... **Dr. Paul T. Costa**, chief of NIA's Laboratory of Personality and Cognition, received from the American Psychological Association's Division 20 its Distinguished Contribution Award for "his role in shaping psychology's view of personality and aging and for his sustained and exceptional contributions to the psychology of aging" ... **Dr. Louis A. Cohen**, chief of the biochemical mechanisms section in NIDDK's Laboratory of Bioorganic Chemistry, was awarded a visiting lectureship by the Nobel Institute of Chemistry. An expert on fluorine-based medicinal compounds, he is currently studying ways to combat malaria, multidrug resistance, and cataracts using novel approaches to drug design. In April 1994, he will commemorate his 40th year at NIH and his 28th year

as director of the FAES Graduate School ... **Dr. Marinos Dalakas**, chief of the neuromuscular diseases section, NINDS, recently received the 1993 Duchenne Erb Prize, given jointly by the German Society of Neurology and the Muscular Dystrophy Association of Germany. The biennial prize was given to Dalakas in honor and support of his research on immune and viral-mediated neuromuscular diseases and therapeutic studies in patients with inflammatory myopathies ... **Dr. Felix de la Cruz**, chief of NICHD's Mental Retardation and Developmental Disabilities Branch, was recently awarded the American Association on Mental Retardation Research Award. He has a long and distinguished career as a researcher and research administrator in the field of mental retardation. For more than 30 years his work has been crucial to developing comprehensive models of diagnosis, treatment and prevention ... **Dr. John C. Donovan**, director of the Office of Laboratory Animal Science, NCI, has been elected president-elect of the American College of Laboratory Animal Medicine ... **Dr. Anthony S. Fauci**, NIAID director, recently received the Cartwright Medal in recognition of his research contributions in

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For the third straight year, the American Federation for Clinical Research (AFCR) has presented the Henry Christian Award for Excellence in Research to a member of the Laboratory of Developmental Biology (LDB) at the National Institute of Dental Research. This year's winner, **Dr. Leslie Bruggeman** (r), was honored for an abstract on the mechanism of gene expression in tissues of HIV-transgenic animals. Bruggeman joined LDB in 1988 as a post-doctoral fellow after receiving her Ph.D. in biochemistry from West Virginia University. Established to honor AFCR's founder, the award is given for the best abstract in each subspecialty represented in the organization. It was presented to Bruggeman at the federation's annual meeting held earlier in 1993 in Washington, D.C. The previous 2 years, **Dr. Jeffrey Kopp** (l) of LDB received the award. Joining Kopp and Bruggeman is **Dr. Paul Klotman**, their section chief at the time they won the awards.

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combating the AIDS epidemic. He joined the ranks of a distinguished list of scientists, researchers, and academicians when he gave the 39th Cartwright Lecture on "Immunopathogenesis of Human Immunodeficiency Virus Infection" at Columbia's College of Physicians and Surgeons ... **Dr. Marcus Fuhrer**, recently selected as the first director of the National Center for Medical Rehabilitation, NICHD, was presented with the Roger Barker Distinguished Career Research Award at the American Psychological Association convention in Toronto. His outstanding research career spans more than three decades and encompasses a broad range of topics including evaluation of electrodermal activity, psychosocial consequences of spinal cord injury, functional assessment, and independent living ... **Dr. Ralph M. Garruto**, a supervisory research biologist in NINDS's Laboratory of Central Nervous System Studies, was recently elected president of the Human Biology Council, which represents scientists internationally who are committed to a basic understanding and multidisciplinary approach to the study of biological variations in populations worldwide ... **Dr. Enoch Gordis**, NIAAA director, received the 1993 Gold Key Award from the National Council on Alcoholism and Drug Dependence, the country's oldest non-profit organization combating alcoholism, other drug addictions, and related problems ... **Dr. Mitchell H. Gail**, chief of the epidemiologic methods section of NCI's Biostatistics Branch and internationally recognized as a leader in the development and adaptation of statistical methods for health research, was elected president-elect of the American Statistical Association. The ASA is the nation's largest professional statistical organization with more than 18,000 members ... **Dr. David Gray**, deputy director of the National Center for Medical Rehabilitation Research, a component of NICHD, has received a Career Achievement Award from the Paralyzed Veterans of America for numerous contributions in the area of disability and rehabilitation research ... **Gail Grosman**, NIGMS administrative officer, recently received the NIH Award of Merit in recognition of her "steadfast commitment, superb leadership skill, and organizational proficiency displayed in the efficient management of administrative services for NIGMS. The award reflects the work she had done to pre-

pare the institute for the move to the Natcher Bldg. ... **Dr. Curtis Harris**, chief of the Laboratory of Human Carcinogenesis and head of the molecular genetics and carcinogenesis section, Division of Cancer Etiology, is the recipient of the 1993 Alton Ochsner Award for his important contributions to molecular genetic studies relating smoking and lung cancer ... **Dr. Jack A. Heinemann**, a staff fellow in NIAID's Laboratory of Microbial Structure and Function in Hamilton, Mont., has been granted one of four ICAAC Young Investigator Awards from the American Society for Microbiology ... **Dr. Jay Hoofnagle**, director of the Division of Digestive Diseases and Nutrition and senior investigator in the liver disease section of NIDDK, recently received the Miles Fiterman/Hugh R. Butt Award for Clinical Research in Hepatology/Nutrition from American Gastroenterological Association Awards Foundation ... **Frances Humphrey Howard**, special assistant to the associate director of the National Library of Medicine's Extramural Programs, has been awarded two honorary degrees of doctor of humane letters. The first was presented by Seton Hill College in Greensburg, Pa. The second was awarded by the University of Maryland at Baltimore. In awarding the degrees, both institutions recognized Howard's extraordinary career of five decades of public service ... **Dr. David G. Jones**, who recently became an NIH scientist emeritus after a long and illustrious career as chief of NCI's Laboratory of Biochemical Pharmacology, was honored with a research symposium on Dec. 6, 1993. The program consisted of seven scientific presentations dealing with the clinical and preclinical aspects of HIV reverse transcriptase inhibition ... **Dr. Albert Z. Kapikian**, head of the epidemiology section in the Laboratory of Infectious Diseases in NIAID's Division of Intramural Research, recently received the Diagnostic Virology Award (Murex Award) from the Pan American Group for Rapid Viral Diagnosis. The award recognizes Kapikian's pioneering studies using electron microscopy that led to the discovery, detection and characterization of important viruses of human disease such as the Norwalk virus, which causes epidemic gastroenteritis, and the hepatitis A virus ... **Dr. Isabella Karle**, an NIGMS grantee, recently was honored with the Franklin Institute's \$250,000 Bower Award. The award recognizes Karle's work in crystallography, the

study of the atomic structure of molecules by using x-rays. The award states that "this inventive work has profoundly facilitated studies in chemistry, biology, and medicine." A senior scientist at the Naval Research Laboratory in Washington, she is the first woman to receive the award ... **Dr. Zaven Khachaturian**, NIA associate director for neuroscience and neuropsychology of aging, recently was awarded the Alzheimer's Association's Presidential Citation for his contributions in building NIA's scientific program on Alzheimer's disease and his responsibility for its expansion and success ... **Dr. Joseph A. Kovacs**, senior investigator, Critical Care Medicine, has been named Young Investigator of the Year for the eastern section of the American Federation for Clinical Research ... **Dr. Michael J. Kuhar**, chief of the Neuroscience Branch at NIDA's Addiction Research Center in Baltimore, has received the 1992 Otto Kraymer Award in Pharmacology for his pioneering research on drug and neurotransmitter receptors in the brain ... **Dr. Edward Lakatta**, chief of the NIA Gerontology Research Center's Cardiovascular Laboratory, is the 1993 recipient of the \$30,000 AlliedSignal Achievement Award in Aging for his significant contribution to this field in biomedical research. In large measure, the foundation of current understanding of how the heart ages is based on Lakatta's discoveries. His detailed, diverse and innovative studies conducted over many years have dispelled the long-held concept that major declines in cardiac function are normal and inevitable parts of aging ... **Dr. Paul Levine**, senior clinical investigator in the NCI Viral Epidemiology Branch, Epidemiology and Biostatistics Program, has been elected president of the American Association for Chronic Fatigue Syndrome and its national advisory council ... **Dr. David J. Lim**, director of NIDCD's Division of Intramural Research, was recently awarded the 1993 Award of Merit from the Association for Research in Otolaryngology for his outstanding research contributions in the fields of auditory neurobiology and otology ... **Dr. David Godwin Longfellow**, chief of the Chemical and Physical Carcinogenesis Branch, NCI, received from Lynchburg College its Distinguished Alumni Award ... **Dr. Harald Loe**, NIDR director, has been honored with an Exemplary Service Award from Oral Health 2000, a research and service initiative convened by the American Fund for Dental Health in 1991. Loe was

cited for providing the vision for Oral Health 2000, which unites private industry, government agencies, health advocacy and volunteer groups, and other organizations with the common goal of improving the oral health of all Americans ... **Dr. Bernard Moss**, chief of the Laboratory of Viral Diseases, NIAID, has been elected president of the American Society of Virologists ... **Levon O. Parker**, NINDS EEO officer, was recently the keynote speaker at the 11th annual Hinton-Wright Lecture. The lecture titled, "Diversity in Clinical and Basic Research," was sponsored by the Hinton-Wright Society of Harvard Medical School in Boston. Parker was chosen as this year's lecturer in recognition of his extraordinary efforts to increase the number of African Americans, Latinos, and Native Americans in basic and clinical neurological science research ... **Dr. William Paul**, chief of the Laboratory of Immunology, NIAID, was selected as the speaker for the first Baruj Benacerraf Lectureship in Immunology. Each year, the lectureship will feature "an important presentation in the field of immunology by a preeminent and internationally respected scientist." Paul was also nominated in February to head the Office of AIDS Research at NIH ... **Dr. Vivian W. Pinn**, director of NIH's Office of Research on Women's Health, recently received several honors. The National Medical Association honored her twice, first as Outstanding Woman in Medicine 1993 "in appreciation of your dedication to improving the health of women." NMA's House of Delegates also honored Pinn for her "inspiring dedication to the health concerns of women and the general populous." Pinn previously served as the 88th president of NMA (and the second woman president) during the year 1989-90. She also received two honorary doctor of science degrees—the first from the College of Holy Cross and the other from Tufts University ... **Mary Kay Richter**, a former member of the National Advisory Dental Research Council, is the winner of a Public Health Award for exceptional achievement in orphan products development. She is founder and executive director of the National Foundation for Ectodermal Dysplasias, an advocacy group for people with ED (a rare, hereditary disorders that results in a variety of medical and dental conditions, including missing or misshapen teeth) ... **Dr. Pamela Gehron Robey**, chief of the skeletal biology section in NIDR's

Bone Research Branch, was named the recipient of the 1993 Fuller Albright Award from the American Society for Bone and Mineral Research for her "meritorious scientific accomplishments in the bone and mineral field" ... **Dr. John Ruffin**, NIH associate director for minority programs and head of the Office of Research on Minority Health, recently received one of the National Coalition of Hispanic Health and Human Services Organizations' 1993 National Hispanic Health Leadership Awards. He was honored "for his effort to secure permanent federal support for health programs to meet the needs of Hispanic, Black and Native American communities" ... **Dr. James B. Snow**, NIDCD director, received the 1993 Distinguished Achievement Award from the Deafness Research Foundation during the foundation's annual benefit. He was honored for his numerous contributions to otolaryngologic medicine. Snow was recognized by the DRF for his prestigious career in the communication sciences, which has thus far spanned more than 30 years ... **Dr. Earl Stadtman**, chief of NHLBI's Laboratory of Biochemistry, has been named winner of the \$20,000 Glenn Award by the Gerontological Society of America. He was cited for adding a significant body of knowledge in the biology of aging. Specifically, he was honored for his highly original studies that have provided the framework for identification and quantification of cellular damage that can lead to premature aging. Stadtman has worked at NIH since 1950 and has been in the lab he now heads since 1962 ... **Dr. Thomas A. Waldmann**, chief of the Metabolism Branch, NCI, delivered the first Joseph Goldberger Clinical Investigator Lecture Sept. 1 at the Clinical Center. These lectures, planned as an annual event, were created to highlight intramural clinical research at NIH. Waldmann's talk on "Adult T-cell Leukemia" reflected his research on regulation of the human immune response. His landmark discovery of active suppression of immune responses by human suppressor T-cells and macrophages revolutionized thinking about the pathogenesis of immunodeficiency and autoimmunity.

APPOINTMENTS AND PERSONNEL CHANGES

Dr. Caroline J. Acker has been named the first recipient of the DeWitt Stetten, Jr.

Memorial Fellowship in the History of Twentieth-Century Biomedical Sciences and Technology. She is working on a topic related to her dissertation, which focused on the influence of laboratory research before 1940 on public policy and addiction treatment. During her year at NIH, she is examining the research of the Laboratory of Medicinal Chemistry, NIDDK, also in this larger context. Upon completing the Stetten Fellowship, Acker will be an assistant professor in the department of history at Carnegie Mellon University ... **Dr. Nancy J. Alexander** was recently appointed chief, Contraceptive Development Branch, Center for Population Research, NICHD. She joined the branch in 1990 as a special assistant. She is also adjunct professor, department of obstetrics and gynecology, Georgetown University Medical Center. As chief of the branch, Alexander will oversee the development of a wide variety of contraceptive approaches for both the female and male ... **Dr. Henning Birkedal-Hansen**, chairman of the department of oral biology and professor of dentistry at the University of Alabama School of Dentistry at Birmingham, has been appointed director of the Intramural Research Program at the National Institute of Dental Research. As director of IRP, he will oversee NIDR research conducted in the institute's own laboratories and clinics on the NIH campus. An expert in the field of periodontology, he has focused his research on the molecular mechanisms of periodontal tissue destruction ... **Dr. Susan J. Blumenthal**, chief of behavioral medicine and basic prevention research, NIMH, has been named to a new post on women's health issues at the Department of Health and Human Services ... **Dr. Marvin Cassman**, who has served as deputy director of NIGMS for the last 4 years, has been named acting director of NIGMS, replacing Dr. Ruth Kirschstein, when she was named acting NIH director. Cassman has also held other positions within the institute, including director, Biophysics and Physiological Sciences Program Branch and chief, molecular basis of disease section of the Cellular and Molecular Basis of Disease Program Branch. He has also worked in the Office of Science and Technology Policy, Executive Office of the President, as a senior policy analyst ... **Dr. Jack C. Chow**, former deputy assistant secretary for public health policy in the Office of the Assistant Secre-

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tary for Health, PHS, has been appointed to the dual position of assistant director for international relations and chief of the International Coordination and Liaison Branch of the Fogarty International Center ...

Karen J. Faunce has been appointed chief of the Administrative Management Branch and principal administrative officer of the Division of Intramural Research, NIAID ...

Dr. Carl C. Floyd, a 1993 graduate of the NIH Grants Associates Program, recently joined the Office of Technology Transfer staff as a licensing specialist. He manages the molecular and cellular biology technology portfolio on the cellular and growth regulation (A) team ...

Dr. Frederick Goodwin, NIMH director, is leaving his position in April 1994 after a 29-year federal scientific career. He was the first scientist to demonstrate the antidepressant effects of lithium in a controlled study. He will join a local university to establish a center on science, medicine and human values, with an emphasis on the neurosciences ...

Dr. M. Michele Hogan has been named chief of the Basic Immunology Branch within the Division of Allergy, Immunology and Transplantation, NIAID ... **Dr. Daniel C. Ihde**, deputy director of NCI since 1991, editor-in-chief of the *Journal of the National Cancer Institute* since 1989, has been appointed chief of the division of medical oncology at Washington University medical school in St. Louis. **Dr. Edward J. Sondik**, deputy director, Division of Cancer Control and Prevention, has been named acting deputy director of NCI. **Dr. Barnett S. Kramer**, associate director for early detection and community oncology in the Division of Cancer Control and Prevention, has been chosen as editor of the *Journal of the National Cancer Institute* ...

Dr. Alan I. Leshner, deputy director of NIMH for the past 15 months, has been appointed director of the National Institute on Drug Abuse effective Feb. 20 ... **Dr. Lance Liotta**, deputy director for intramural research, has returned to NCI as chief of the tumor invasion and metastases section in the Laboratory of Pathology, chief of the Laboratory of Pathology, and codirector of the Anatomic Pathology Residency Program in the Laboratory of Pathology. **Dr. Michael Gottesman**, chief of the Laboratory of Cell Biology, NCI, has been named acting deputy director for intramural research ...

Dr. Jay Moskowitz, NIH deputy director for science policy and technology transfer, has been reassigned to the post of deputy director of the National Institute on Deafness and Other Communication Disorders ... **Dr. Ronald McKay**, an associate professor of human biology and experimental medicine at Massachusetts Institute of Technology, recently joined NINDS as chief of its Laboratory of Molecular Biology ... **Dr. Lillian Pubols** has joined the Referral and Review Branch, DRG, as scientific review administrator of the neurology B1 study section. Before coming to NIH, she was a senior scientist at the Robert S. Dow Neurological Sciences Institute and adjunct professor of physiology at the Oregon Health Sciences University in Portland ... **Johanna Schneider**, senior advisor for media relations to the NIH director on communications and policy issues for the past 2 years, has left NIH. She will join the Business Roundtable as director of communications at its Washington, D.C., headquarters ... **Elizabeth Thomson**, formerly the coordinator of statewide genetic counseling services at the University of Iowa, has joined the Ethical, Legal, and Social Implications Branch, NCHGR. She will serve as coordinator of the branch's research portfolio on issues related to genetic testing, education and counseling ... **Dr. Harold E. Varmus**, NIH director, has been appointed to the new 20-member National Science and Technology Council. The council was created by Executive Order in November 1993 to oversee the \$73 billion federal R&D budget ... **Dorrette Worrell** was recently named chief, research documentation section, Information Systems Branch, DRG. Previously, she served as head of the statistical analysis unit in the same branch

RETIREMENTS

Dr. Stuart Aaronson, chief of the Laboratory of Cellular and Molecular Biology, retired from the USPHS Commissioned Corps in August 1993 to become director of the Rutenbergs Cancer Center at the Mount Sinai School of Medicine in New York ... **Catherine (Cathy) Baker**, NCI contract specialist, retired on Dec. 31, 1992, after over 30 years of government service. She began her federal career with the Department of the Navy in 1954, and transferred to NIH in 1959, working in what was then called the Financial Management Branch (now

Division of Financial Management). In 1965, she moved to NCI and remained there until her retirement in 1992. She is the wife of Dr. Carl G. Baker, former NCI director ... **Barbara Bynum**, director of NCI's Division of Extramural Activities since 1981, retired on Jan. 13. She came to NCI in 1958 to work as a chemist in the Laboratory of Physiology. After graduating from the management intern program in 1972, she moved over to the Division of Research Grants where she was a study section executive secretary and then chief of the special review section. Her retirement plans include traveling, golf and gardening. Earlier last year her husband, **Elward Bynum**, head of the NIH Minority Access to Research Careers program, retired ... **Howard Davis** has retired after more than 31 years in the Division of Engineering Services. As a project officer in the Design and Construction Branch, his most recent project involved adding to the present facilities at Poolesville plus renovating the laboratories in Bldg. 30. Although Davis has enjoyed his years at NIH, he is looking forward to retirement when he can spend more time on woodworking and fishing ... **Lydia Elliot**, who worked for 26 years at NIH, has retired. Most recently secretary to Dr. Henry Fales, chief of NHLBI's Laboratory of Biophysical Chemistry, and Warren Leonard, chief of the pulmonary and molecular immunology section, she had a diverse career at NIH. Once retired, she hopes to do a little traveling and a lot of relaxing ... **Dr. Phyllis Eveleth** has retired as deputy associate director and training officer, Office of Extramural Affairs, NIA. She spent 6 years with NIA, and a total of 15 years with NIH, beginning as a grants associate and continuing in positions at NHLBI, FIC, and DRG, respectively, and, finally, NIA. Nationally and internationally recognized for her work in the area of child growth, Eveleth will continue her career as a consultant in child growth and nutrition, specializing in third-world countries. She will also head a special project assessing physical status in aging. Amid all of this she will continue to enjoy her horse farm in southern Maryland, horseback riding, sailing, downhill skiing, swimming, and painting ... **Dr. Murray Goldstein** retired in October 1993 from his position as NINDS director, ending a career of service in the NIH community and the PHS Commissioned Corps that spanned four decades (see p. 3

for an essay by him). Upon leaving his NIH post, he became medical director of the United Cerebral Palsy Research and Education Foundation. Dr. Patricia A. Grady has been named acting NINDS director ... **Bob Schreiber**, a longtime NIH public information officer, retired recently after more than 30 years of federal service, the last decade of which was spent chiefly following the broadening impact of the laboratory animal issue on NIH intramural and extramural research. In retirement, he and his wife plan to remain in the Washington area but travel more frequently ... **Dr.**

Philip A. Swango retired from the Public Health Service on Sept. 30 after more than 20 years of federal service, 18 of them with NIDR. His research focused on the epidemiology and prevention of oral diseases and disorders, including dental caries, oral cancer, and the oral manifestations of HIV infection. In 1991, he was named chief of the field studies section of the Health Assessment Branch, the position he held upon his retirement. Swango and his family have moved to Albuquerque, N.M., where he plans to open an oral epidemiology consulting practice. An avid amateur naturalist, photographer and ethnomusicologist, he selected New Mexico for its cultural variety and spectacular natural environment ... **Dr. Nathan Watzman**, chief of the clinical sciences review section, Referral and Review Branch, DRG, recently retired from the federal government with a distinguished career spanning 25 years, the last 12 at NIH. He plans to do some part-time consulting in retirement, and to travel and do volunteer charity work ... **Dr. Bernhard Witkop**, longtime chief of NIDDK's Laboratory of Chemistry, has retired from NIH after a notable tenure of 42 years. In recognition of his many scientific accomplishments such as his development of the cyanogen bromide reaction and his promotion of international scientific exchange, Witkop was recently given the honorary title of NIDDK institute scholar emeritus.

DEATHS

Dr. William Staton Anderson, 87, a retired Washington, D.C. pediatrician, hospital official and teacher who was a consultant to NIH, died of pulmonary complications after hip surgery on Jan. 15 at a hospital in West Chester, Pa. He had practiced pediatrics in Washington from 1935 until

retiring and moving to West Chester in 1981 ... **Dr. Mitchell B. Balter**, 68, a research psychologist who worked for NIMH for 25 years, died Feb. 5 at Georgetown University Hospital after a heart attack. His research was in psychopharmacology. He retired from NIMH in 1985 and became head of the Public Health Research Center, a private nonprofit, research organization ... **Dr. Elmer G. Berry**, 86, an expert on parasitic disease who was at NIH from 1945 to 1965, died Nov. 28 at Centre Community Hospital in State College, Pa. While at NIH he directed programs for the study and control of schistosomiasis in Liberia, West Africa and Egypt. After leaving NIH he returned to the University of Michigan and taught parasitology and was awarded professor emeritus status upon his retirement in 1975 ... **Dr. Halla Brown**, 81, a former physician and medical professor who was chief of the allergy clinic at George Washington University Medical Center, died Dec. 2 at her home in Washington of multiple system organ failure. She had been paralyzed since 1974, when she was injured in an auto accident in the District involving a diplomat who claimed immunity from prosecution. The ensuing publicity and debate resulted in Congressional legislation to change the diplomatic immunity laws. She was a consultant to NIH ... **Dr. James Carlos**, 62, who was chief of the NIDR Epidemiology and Oral Disease Prevention Program before his retirement in 1991, died on July 18 at his home in Naples, Fla., after a long battle with cancer. Carlos joined NIDR in 1967 as chief of the biometry section. He served as associate director of the institute's National Caries Program from 1972 to 1984, and as associate director and branch chief of the Epidemiology and Oral Disease Prevention Program from 1984 to 1991 ... **Donna Hurst Carter**, 35, a budget analyst in the NINDS budget office, died on Dec. 24, 1993, in a car accident that also killed her brother-in-law and grandmother and seriously injured her sister. In 1992, she was selected to participate in the NIH Management Intern Program. After graduating in 1993, she joined the NINDS budget office where she was well-liked and respected ... **Dr. David G. Cogan**, 85, who was chief of neuro-ophthalmology at the National Eye Institute from 1974 to 1985, died Sept. 9 at a hospital in Wayne, Mich., after a heart attack. A resident of Chevy Chase, he was on vacation at his summer

home when he became ill. He had been a senior medical officer at NEI since 1985. Before he joined NIH in 1974, he had been director of Harvard University medical school's Howe Laboratory of Ophthalmology from 1940 to 1973 and chairman of the school's ophthalmology department from 1962 to 1968. An international leader in ophthalmology, he was the author of "Neurology of the Visual System," a reference text used by ophthalmologists and neurologists, and the recently completed "History of the Howe Laboratory" ... **Dr. Sidney J. Cutler**, 76, a biostatistician and epidemiologist at NCI from 1948 to 1975, died of cancer Oct. 21 at his home in Silver Spring. In 1954 and 1955, he was one of the first scientists to publish data showing a link between smoking and the possibility of later developing lung cancer. After he retired he spent a year in Detroit, where he was a professor in the department of community medicine at Wayne State University and chairman of the department of epidemiology at the Michigan Cancer Foundation. He returned to the Washington area in 1976 and was named professor in the division of biostatistics and epidemiology at Georgetown University of Medicine until retiring in 1983. He did consulting in biostatistics and epidemiology from 1983 to 1987 ... **Dr. Bernard D. Davis**, 78, the Adele Lehman professor of bacterial physiology at Harvard Medical School, died Jan. 14 at his home in Belmont, Mass., of prostate cancer. He was member of the NIHAA board of contributing editors. In the mid 1980's, he was a Fogarty scholar-in-residence. He was also a leader in bacterial genetics research and the senior author of a standard textbook on microbiology ... **Emma "Mickey" Davis**, 77, a retired administrative aide at NIH, died Jan. 14 at a hospital in Ridgewood, N.J., where she was being treated for cancer. She worked for the federal government for 30 years before retiring in the mid-1970's ... **Paul V. De Porte**, 74, who retired in 1983 after 37 years as a medical translator at the Clinical Center library, died of sepsis Dec. 31 at Mercy Hospital in Baltimore ... **Dr. Lucia Jordan Dunham**, 87, a retired researcher in the pathology laboratory at NCI, died Feb. 21 at Suburban Hospital after a stroke. She retired in 1974 after 23 years at NCI, where she worked on studies of transplantable and transmissible tumors, carcinogenic materials in drinking

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water and environmental causes of oral cancer. While retired she wrote poetry and was also director of the Mineralogical Society of Washington ... **Frank Ehrlich**, a retired budget analyst in the office of the NIH director for over 20 years, died on Jan. 25. He retired from NIH in 1984 ... **Dr. George Fite**, 89, an authority on leprosy, died of pneumonia Sept. 29 at Oak Manor nursing home in McKenzie, Tenn. He also had Alzheimer's disease. In 1937, he joined the Public Health Service and his first job was in Kalaupapa, Hawaii, where the health service had a leper colony. He worked there until 1941, when he transferred to NIH. In 1948, he joined the staff at the leprosy hospital in Carville, La. From 1952 to 1956, he worked at NIH until he returned to the hospital in Carville. He returned to the Bethesda area in 1975 and moved to Tennessee two years ago ... **Dr. David H. Gillespie**, 53, a genetic researcher who studied the relationship of genes and illness, especially cancers, AIDS and other diseases, died Dec. 19, after an auto accident near his home in Glenmore, Pa. He was the Barry Ashbee professor of basic research at Hahnemann University in Philadelphia. He was also an adjunct professor of virology at the University of Pennsylvania and its veterinary school. Gillespie had worked at NCI from 1975 to 1980 ... **Gay N. Grover**, 54, a retired psychiatric nurse at St. Elizabeths Hospital and the National Institute of Mental Health, where she did research on obsessive-compulsive disorder and premenstrual syndrome, died of cancer Oct. 20 at the Hospice of Northern Virginia. In 1973, she joined the U.S. Public Health Service. She worked at NIMH until transferring to St. Elizabeths Hospital in 1990. She was a nurse consultant in forensic psychiatry until retiring in August ... **Gloria R. Grover**, 71, a retired editor and publications manager with the National Institute on Drug Abuse, died of pneumonia and a blood disorder Oct. 4 at Sibley Memorial Hospital. She retired in 1984 after 17 years at NIH ... **Edith Fenn Hanly**, 70, a former biochemical researcher at NIH in the late 1940's, died of a heart attack Jan. 21 at her home in Kensington ... **Jane Sudduth Hibbert**, 80, who retired in 1978 as a liaison officer to NIH from Vitro Laboratories Co., died of cardiorespiratory arrest Jan. 26 at the Georgetown Retirement Home in Washington ... **Helen R. Hoener**, 72, died of pneumonia Jan. 21 at Sibley Memorial Hospital. From 1962 to 1967, she worked at NIH as a

research assistant ... **Rosena V. "Jessie" James**, a Nursing Department employee at the Clinical Center since 1970, died of cancer Jan. 4 at George Washington University Hospital. She joined the CC staff as a clerk/typist in the cancer nursing service. She was promoted and transferred to the then office of the Nursing Department chief in 1971. She was secretary to Kathryn McKeon, CC associate director for nursing, at the time of her death ... **Dr. Nasser Javapour**, 56, who was chief of urology at Maryland General Hospital in Baltimore, died of cancer Oct. 26 at Johns Hopkins Hospital. He had come to the Washington area from Iran in 1972 and worked at the NCI urologic clinic from 1972 to 1984. Then he was appointed professor and director, section of urologic oncology, University of Maryland School of Medicine. He also had served as a visiting professor at medical schools in this country and abroad and had been a visiting scientist at the Armed Forces Institute of Pathology ... **James F. Kieley**, 86, died Oct. 21 at Vassar Brothers Hospital in Poughkeepsie, N.Y., where he had been a resident for the last 25 years. From 1953 to 1972, he was chief of the Research Information Branch at NCI. After he left NCI, Kieley became a reporter for the *Eagle News* in Poughkeepsie and wrote numerous books, magazine articles, manuals and papers concerning politics, health and military history ... **Dr. Ira Kline**, 69, a microbiologist who retired in 1986 as a grants associates director at NIH, died of complications of heart surgery Oct. 6 at Washington Hospital Center. He was a cancer researcher for much of his career starting at Microbiological Associates in Bethesda and later at NCI, where he worked from 1949 to 1958 and then again from 1975 to 1984 ... **Henry Knight**, 60, who worked at NIH in property management for 21 years before retiring in 1984, died Jan. 8 at Walter Reed Medical Center after a heart attack. He had undergone a kidney transplant in 1973 ... **Elaine J. Kraus**, 64, died on May 9 at Georgetown University Hospital after a long illness. She joined NIAID in 1974 as a clerk typist in the Laboratory of Clinical Investigation and had served as a purchasing agent in NIAID's Division of Intramural Research since 1977 ... **Dr. Ralph Eddy Knutti**, 92, a pathologist who was the third director of the National Heart Institute from 1961 to 1965, died Jan. 19 of complications of pneumonia at a hospital in Upland, Pa. He lived in Kennett Square, Pa. Joining the

PHS Commissioned Corps in 1951, he was assigned to the National Institute of Arthritis and Metabolic Diseases as chief of extramural programs. In 1960 he was appointed associate director for that institute before being named head of NHI. As director, Knutti sought to develop and support far-reaching intramural and grants research programs in the diseases of the heart and blood vessels. He retired in 1965 and became the executive officer of Universities Associated for Research and Pathology Inc. in Bethesda. He retired in 1972 and moved from Bethesda to Kennett Square in 1990. He is survived by his wife, Dr. Sarah H. Knutti, who was also at NIH ... **Barbara L. Lasky**, 62, a specialist who worked as a contract negotiator and budget assistant with NIH, died of respiratory arrest Jan. 16 at George Washington Hospital ... **Mary Woodard Lasker**, 93, a philanthropist who sparked and lobbied for medical research in cancer, heart and eye diseases, died Feb. 21 of heart failure at her home in Greenwich, Conn. ... **Dr. Henry D. Lederer**, 79, died of cancer Jan. 6 at his home in West Chester, Pa. He was a psychiatrist who was a dean of students at the Georgetown University medical school and also was an associate director of the National Institute of Mental Health from 1969 to 1971 ... **Dr. Brigid G. Leventhal**, 59, a professor of oncology and pediatrics at the Johns Hopkins School of Medicine and the first director of the Pediatric Oncology Center, died Feb. 6, of cancer at her home in Columbia, Md. She had come to work at NCI in 1964 where she was a member of the recombinant DNA advisory committee and headed the chemotherapeutic section until she went to Hopkins in 1976 ... **Allison Lum**, who had worked for NCI since 1969 as a data entry clerk and then in the NCI mail room, died Jan. 1 of cancer ... **Sara Jane McGovern**, 72, a former registered nurse at NIH, died of cancer Aug. 11 at Shady Grove Adventist Hospital. After serving as a nurse with the Army Air Forces in World War II, she moved to the Washington area in the 1950's and worked at NIH for about 15 years during the 1970's and 1980's ... **Dr. Michael S. Madeloff**, 63, a retired physician, died of cancer Dec. 31 at Suburban Hospital. He retired last May and was a former senior attending nephrologist at Suburban, where he established the kidney dialysis unit. He also was a clinical associate professor at Georgetown University medical school. In 1960 he was a fellow in renal diseases at NIH before going

into private practice in 1961 ... **Dr. William R. Martin**, who was director of the National Institute of Mental Health and National Institute on Drug Abuse's Addiction Research Center from 1957 to 1977, died May 27, 1993, in Kentucky. He was a professor at the University of Kentucky College of Medicine in the department of pharmacology ... **Dr. Severo Ochoa**, 88, a biochemist who was a cowlinner of the 1959 Nobel Prize for Medicine or Physiology for his pioneering work on DNA, died Nov. 1 at a hospital in Madrid after a stroke. He and a former student, Stanford University biochemist Arthur Kornberg, were awarded the Nobel for the laboratory synthesis of DNA, the genetic building blocks of life. His work had been supported by grants from NIH ... **Eleanore M. "Gay" Olson**, 79, died of cancer Dec. 26 at Shady Grove Adventist Hospital. She had worked at NIH as a secretary in the National Cancer Institute in the late 1950's and early 1960's ... **Dr. Lawrence Michael Petrucelli**, 61, former NIAMS Arthritis Program director, died on Sept. 27. He joined NIH in 1970 as a scientist administrator, and later became executive secretary of the pharmacology study section in the Division of Research Grants. In 1974, he joined what was then NIAMD, as Arthritis Program director. He remained in that position until his retirement in 1992 ... **Dr. Richard V. Phillipson**, 80, a psychiatrist and retired British army brigadier who was a senior medical adviser with NIH from 1968 to 1984, died Oct. 30 at a hospital in Berryville, Va., after a heart attack. After having served in the British army from 1935 to 1961 and then working for the British Ministry of Health, he came to the United States in 1968 as a visiting scientist with the National Institute of Mental Health. He was an authority on alcoholism and drug addiction treatment ... **Hallett H. "Hal" Potter, Jr.**, a computer assistant at the Division of Computer Research and Technology with 27 years of federal service, died of complications arising from multiple sclerosis on Nov. 23 at his home in Takoma Park, Md. He began his NIH career in 1970 and progressed from clerk to supervisor. He was also a member of the Wheaton Volunteer Rescue Squad ... **Dr. James Quest**, 49, a pharmacologist and toxicologist who had worked for the FDA, NIH and EPA, died of liver cancer Sept. 17 at Montgomery General Hospital. He worked at NIH from 1981 to 1984 in the national toxicology program at NIH's National Institute of Environmental Health

Sciences. Quest had done research dealing with cardiovascular drugs, including digitalis, and worked on the safety of various chemical agents in the environment and regulatory toxicology. Since 1981, he had been an adjunct professor of pharmacology at Georgetown University medical school ... **Holly A. Smith**, 67, a research technician in the field of virology at NIAID, died of a heart attack Nov. 19 at Washington Hospital Center. He began working at NIH in 1953 after he moved to Washington ... **Patricia Anne Southcomb**, 49, a personnel officer with the National Library of Medicine who had worked since 1975 for the government, died of cancer Aug. 4 at her home in Brookeville, Md. After working with the Food and Drug Administration, she transferred to NIH in 1981, working in the Office of the Director before becoming a personnel officer with NLM in 1989 ... **Dr. Nathaniel R. Spencer**, 76, a general surgeon in Monroe, La. died June 28. He was the son of the late Dr. Roscoe Roy Spencer, the discoverer of a preventive vaccine for Rocky Mountain spotted fever who was also director of NCI from 1943 to 1947 ... **Dr. Anita Suran**, scientific review administrator of the visual sciences A study section, Division of Research Grants, died Sept. 6 after a brief illness. She came to NIH in 1978, serving as program director of NEI's glaucoma program prior to coming to DRG ... **Dr. Howard M. Temin**, 59, a professor at the University of Wisconsin and winner of the Nobel Prize for Medicine in 1975, died of lung cancer Feb. 9 in Madison. He was a member of the National Cancer Advisory Board for the past 6 years and a recipient of NCI support. His research led to discoveries in genetics that helped identify the AIDS virus, provided the basis for the growth of the biotechnology industry and allowed the development of drugs such as human insulin and tpa, through genetic engineering ... **Dr. Lewis Thomas**, 80, a noted scientist, teacher, medical administrator and author, died Nov. 3 of Waldenstrom's disease, a rare form of cancer, at a hospital in New York. In 1989, he won the prestigious Albert Lasker Public Service Award "for being a scientist, administrator, catalyst, teacher and poet laureate of 20th century medical science." The Lasker jury also said that his writings "have converted countless non-scientists into appreciation spectators and supporters of biomedical research." He was a consultant to NIH serving on the NIH pathology study section and several advisory councils ... **Betty Lucille Wells**, 66, a

retired grants assistant at the National Institute of Mental Health, who was also an executive secretary at Tracor Applied Sciences in Rockville, died of cancer Nov. 26 at her home in Kensington. In the early 1950's, she went to work at NIH where she was an assistant in the process of dispensing research grants at NIMH until retiring in 1981 ... **Elisabeth Barton White**, 85, a social worker who was at the National Institute of Child Health and Human Development, died of a heart attack Feb. 1 at the Broadmeade retirement community in Cockeysville, Md. In 1969, after working in the federal government, she joined NIH and organized conferences at NICHD until her retirement in 1972 ... **Dr. Bill Henry Williams**, 85, retired director of pediatric neurology at NIH, died of cancer Jan. 3 at Sibley Memorial Hospital. In 1962 he moved to Washington to become head of pediatric neurology at the National Institute of Neurologic Diseases and Stroke. He retired in 1979 ... **Dr. Milton Wittman**, 78, a retired chief of the Social Work Training Branch in the National Institute of Mental Health, died Feb. 22 at Suburban Hospital after a stroke. He came to NIH in 1947 as a member of the U.S. Public Health Service and retired in 1979. He was an expert on training social workers in the field of mental health and for work in community mental health programs ... **Dr. Sheldon M. Wolff**, 63, physician-in-chief at the New England Medical Center and chairman of the department of medicine at Tufts University School of Medicine, died Feb. 9 in Boston of complications from a renal malignancy. He was an authority on infectious diseases, especially the treatment of fevers from infectious diseases like Wegener's granulomatosis and familial Mediterranean fever. In 1992, Wolff was selected the NIH/NIAID Most Distinguished Alumnus. From 1960 to 1977, he was clinical director at NIAID and chief of its laboratory of clinical investigations.

The NIH Alumni Association recently received a contribution in memory of Dr. Robert J. Schnitzer from a NIHAA member who wishes to remain anonymous. Contributions in memory of Rosena "Jessie" James, Dr. Brigid G. Leventhal and Dr. Sheldon M. Wolff were donated by Mrs. Mary Calley Hartman.

NIH Retrospectives



Spring 1954

On Jan. 5, 1954, the first NIH employees moved into the new apartment building on 20 Center Drive. The seven-story building was built primarily for employees whose presence on the campus is essential to prompt and proper performance of Clinical Center or other NIH functions ... Twenty-eight of the forty finalists of the thirteenth annual science talent search, sponsored by the Westinghouse Educational Foundation, visited NIH ... The National Cancer Institute, the NIH Office of Biometry, and the Veterans Administration are sponsoring a cooperative study to determine whether persons who use tobacco have higher mortality rates from various diseases than those who do not use tobacco. One of the prime objectives of the study is to determine whether smokers and nonsmokers differ in their mortality from lung cancer, and if so, by how much. Another objective is to determine if a relation exists between mortality and the use of tobacco in any form—cigarettes, pipes, cigars, or snuff.



Spring 1964

The Fiscal Year 1965 Federal budget submitted to Congress Jan. 21 by President Johnson included a \$1.03 billion request for the NIH ... On Jan 11, the Public Health Service made public the long-awaited 387-page report of the Surgeon General's Advisory Commit-

tee on Smoking and Health that established the causal association between smoking and lung cancer ... Clarence W. May, whose 37-year career with the Public Health Service spanned the emergence of NIH as one of the world's foremost research centers, died Jan. 11 in the Clinical Center where he had been a patient since early fall. Affectionately known as "Mr. NIH," May, 65, retired in 1957 as special assistant to the Chief of the Division of Research Services. He was one of the 158 original employees who came to Bethesda in 1938 when the then NIH transferred from its downtown location at 25th and E Streets, N. W. Although untrained as an architect or construction engineer, he became expert in the planning, construction and maintenance of research facilities and laboratories, and played a leading role in the physical development of NIH.



Spring 1974

In January 1974 the final location of the Medical Center Station serving NIH, the National Naval Medical Center, and surrounding area was approved by the Metro Board. Operation is planned for 1978. (In reality the Metro at the Medical Station opened on Aug. 25, 1984) ... Dr. Robert S. Gordon, Jr., was named NIH associate for clinical care and director of the Clinical Center Jan. 7. He has been with NIH since 1951 serving first with the National Heart and Lung Institute, and since 1964 as clinical director of the National Institute of Arthritis, Metabolism, and Digestive Diseases. He will advise the NIH director on policies pertaining to clinical research conducted or supported by NIH as well as direct the Clinical

Center. Gordon succeeds Dr. Thomas Chalmers who left NIH October 1973.

The NIH Record

U.S. Department
of Health,
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National
Institute of
Health

Spring 1984

Remnants of a prehistoric campsite at least 3,000 years old have been discovered by archaeologists on the NIH campus. The discovery, made during an inspection of a planned roadway route (Woodmont Ave. extension) last summer, includes several arrowhead-like "points," portions of stone tools and numerous pottery fragments ... On May 24, 1984, the convent and surrounding land was designated the Mary Woodard Lasker Center for Health Research and Education in honor of her efforts for and commitment to NIH.

What is NIH?

Dr. Lewis Thomas, who recently died, wrote the following in 1984 as a foreword to *NIH: An Account of Research in its Laboratories and Clinics*.

".... it lifts the heart to look closely at one institution created by the United States Government which has been achieving, since its outset, one spectacular, stunning success after another. The National Institutes of Health is not only the largest institution for biomedical science on earth, it is one of this nation's great treasures. As social inventions for human betterment go, this one is a standing proof that, at least once in a while, government possesses the capacity to do something unique, imaginative, useful, and altogether right...."

German Embassy Hosts NIHAA Reception and Concert

On Thursday evening, Oct. 21, 1993, members of the NIH Alumni Association and visiting scientists at NIH from Germany, enjoyed a cocktail reception and concert by the Encore String Quartet at the German Embassy. The delightful evening of good food and music was hosted by Klaus Werndl, the economic minister of the German Embassy.



Dr. Norman Salzman of Georgetown University School of Medicine, and formerly with NIAID, arriving with Mrs. Salzman.



Among the guests enjoying the Embassy's hospitality were over 50 scientists at NIH from Germany.



Klaus Werndl, the economic minister of the German Embassy (r), with Dr. James T. Duff, Washington chapter chairman, greeting NIHAA members.



The Encore String Quartet, who performed for the audience of over 150.



Klaus Werndl talking with some of the visiting German scientists at NIH.



NIHAA UPDATE

If You Are Not Yet A Member of the NIHAA [Clip and mail]

NIHAA Office
9101 Old Georgetown Rd.
Bethesda, MD 20814

I would like to apply for membership in the NIH Alumni Association. My NIH position:

(Title)	(Organization)
from _____ to _____ (Years)	My membership dues of \$ _____

are enclosed payable to FAES/NIHAA.

(Please type or print)

Full Name: _____

Title: _____

Place of Employment if applicable: _____

Mailing Address: _____

City, State and Zip Code: _____

Telephone: _____

You will be receiving a dues renewal notice from NIHAA for 1994-1995 in May. Please return it promptly. Dues are an important source of our income and we need your continued support.

Memberships

Please indicate membership desired:

Type	Annual Dues
Alumni (for past NIH employees only)	\$25.00
Associate (for current NIH employees)	\$25.00
Friends (for individuals or institutions interested in NIHAA's goals)	\$25.00 to \$10,000.00
Life	\$250.00

Donations or bequests are welcome.

Please indicate amount here

\$ _____

NIH Alumni are people who have worked or studied at NIH. Present NIH staff are invited to join as associate members.

NIHAA Update
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Renew Now

James Augustine Shannon: An Appreciation

By Dr. Thomas J. Kennedy, Jr.

James Augustine Shannon died suddenly on May 20, just short of his 90th birthday, at his residence in the Church Home, Baltimore, of a ruptured abdominal aortic aneurysm.

Born in New York City, Shannon received his baccalaureate from the College of the Holy Cross in 1925, where he was renowned more as a "jock" (basketball and track) and play-boy than as a scholar. By a stroke of luck, the then dean of New York University School of Medicine, John Wycoff, also a notable athlete, interviewed him for admission, recognized talent not discernable in Shannon's transcript and took a chance on him.

Lore has it that he was a fabulous student—graduating in 1929. Next, as a medical house officer at Bellevue, Wycoff had to rescue him once more, when Shannon toyed briefly with switching from medicine to surgery.

(See *Shannon* p. 16)



Dr. James A. Shannon (circa 1965)

Research Festival '94

NIHAA Members Invited to NICHD Alumni Symposium

The first morning of NIH Research Festival '94—Monday, Sept. 19—will start off with a program recognizing the National Institute of Child Health and Human Development and its alumni. This event is being celebrated with a symposium entitled "Developmental Biology: Contributions of Basic Science to Human Biomedical Research" in honor of Dr. Philip Leder, recipient of the NICHD 1994 Distinguished Alumnus Award.

In 1980, Leder went to Harvard Medical School where he now is the John Emory Andrus professor of genetics, and chairman, department of genet-

(See *Research Festival* p. 6)



Dr. Philip Leder

Jury Is In

Intramural Research Faces Major Renovations

By Carla Garnett

Restructure the tenure process, revamp the Clinical Center and revisit resource allocation—these are three of 11 key recommendations for renovating NIH's Intramural Research Program, according to the report by an outside subcommittee formed to study the IRP. The 10-member group—called the external advisory committee (EAC)—of the advisory committee to the NIH director undertook the 5-month review last October in response to a congressional mandate. Their deliberations concluded in February.

In all, more than 40 recommendations ranging widely from recruitment and retention of minority and women scientists to enhancement of NIH-private sector collaboration were made by the EAC, which was cochaired by Dr. Paul A. Marks, president and CEO of Memorial Sloan-Kettering Cancer Center in New York City, and Dr. Gail Cassell, professor and chair of the microbiology department at the Univer-

sity of Alabama at Birmingham. The cochairs were chosen by NIH director Dr. Harold Varmus and NIH deputy director Dr. Ruth Kirschstein. Several former intramuralists also served on the

(See *Intramural Research* p. 14)

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Calendar of Exhibits and Upcoming Events

SEPTEMBER—DECEMBER

An exhibit on "Islamic Culture and the Medical Arts" featuring Arabic and Islamic manuscripts from the 11th through 19th centuries in the collection of the History of Medicine Division, NLM, is on display in the front lobby of the NLM (Bldg. 38, 8600 Rockville Pike). The show will start on Sept. 12 and end Dec. 31. For further information call Anne Whitaker at (301) 496-5961.

SEPTEMBER—NOVEMBER

Medicine for the Public:

Sept. 27—Schizophrenia: Out of the Shadows

Oct. 4—The Rise and Fall of Post-transfusion Hepatitis

Oct. 11—Ulcers: Diagnosis and Treatment

Oct. 18—Shingles: Another Pox on Us

Oct. 25—Viruses: The Good, The Bad, and The Ugly

Nov. 1—Reading Our Own Blueprint: The Human Genome Project

This is a lecture series on health and disease presented by NIH physicians and scientists sponsored by the Clinical Center, NIH. The lectures are free and held on Tuesday evenings beginning at 7 in Masur Auditorium, Bldg. 10. For information call (301) 496-2563.

OCTOBER—APRIL 1995

The Foundation for Advanced Education in the Sciences, Inc., will sponsor nine concerts in the 1994-95 season.

Oct. 9—Eduardo Halim, piano

Oct. 30—Bach Aria Group

Nov. 20—Gary Schocker, flute

Dec. 4—John O'Connor, piano

Jan. 15, 1995—Aulos Ensemble

Jan. 29—Cherubini String Quartet

Feb. 12—Lilya Zilberstein, piano

Mar. 5—Mischa Maisky, cello

Mar. 19—Borromeo String Quartet

Concerts are held on Sundays at 4 p.m. in Masur Auditorium, Bldg. 10. Tickets are required. For more information call (301) 496-7976.

SEPTEMBER

Research Festival '94

Sept. 19—NIH/NICHD Alumni

Symposium on Monday morning from 8:45 to 12 noon in Masur Auditorium, Bldg. 10 and posters in tent.

Sept. 19, 20, and 21—Additional symposia and workshops, and interest group tent session.

Sept. 22 and 23—Technical Sales Association Scientific Equipment Show.

OCTOBER

The DeWitt Stetten, Jr. Lecture will be Wednesday, Oct. 19, 1994, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker will be Dr. Stuart L. Schreiber, professor of chemistry and cellular and molecular biology, Harvard University. The title of his talk is: "A Natural Products-based Approach to Understanding and Controlling Signal Transduction."

The George Khoury Lecture will be Monday, Oct. 24 at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker will be Dr. Arnold Levine, department of molecular biology, Princeton University. He will speak on "The Functions of the P-53 Tumor Suppressor Gene."

NOVEMBER

The Leon Jacobs/Gorgas Memorial Lecture will be on Tuesday, Nov. 29, at 3 p.m. in Wilson Hall, the Shannon Bldg. The speaker is Dr. Dan Colley from the Centers for Disease Control and Prevention.

Thank you to our friends

The NIHAA warmly welcomes the following organizations that joined in the category of "Friends" and wishes to acknowledge its appreciation for their generous support:

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We would also like to express our deep appreciation to the following contributors to NIHAA-sponsored events in 1992:

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Credit

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Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814, (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or comments on and suggestions for the NIHAA Update, please drop a note to the editor. We reserve the right to edit materials.

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NIHAA Essay

An Update on NIH

By Dr. Ruth L. Kirschstein

(Editor's note: This is the text of a talk delivered by Dr. Ruth L. Kirschstein, NIH deputy director, at the annual meeting of the NIHAA on June 18, 1994.)

Thank you for inviting me to this annual event. Last year, when you made the alumni association's first Public Service Award, I was present. Little did we know then that the honoree, Congressman Natcher, would not be with us a year later. And so, I want to start by saying a few words about Mr. Natcher. I had the privilege to testify before the House Appropriations Committee and he, as its chairman for 15 years, and I became good friends. His dedication to NIH and the support of biomedical research was unwavering; he was our great friend. I had the honor to attend his funeral in Bowling Green, Ky., on a very rainy day, appropriate for the sad occasion and heard eulogies by many, including President Clinton, who specifically mentioned Mr. Natcher's great interest in NIH. I am pleased that the alumni association was able to honor him while he was still in relatively good health. Sometime in September or early October we will dedicate the Natcher Bldg.

As all of you know, a distinguished alumnus, Dr. James Shannon died in May. His legacy at NIH remains strong. Many think NIH has changed tremendously since he retired as NIH director in 1968. It has, but most of the principles for which he stood are still rock solid. We are planning—along with the alumni association—to hold a memorial service for him in the Shannon Building in the next few



Dr. Ruth L. Kirschstein

months. We have been in touch with his son who lives in Rockville and will choose the final date very soon.

Don Fredrickson has said that he would like to speak at the memorial.

I also would like to add my personal congratulations to Roy Vagelos. He greatly distinguished himself while at NIH, at Washington University in St. Louis, and through his work with Merck. Even after he left, Roy never forgot his NIH roots—he has given much back to NIH, including the wonderful Children's Inn, which is a visible and valued asset. Most recently, he has served NIH with great dedication as a member of the External Advisors who reviewed the NIH intramural program during the past year and presented us with a superb report. Its recommendations already are being implemented. That study, incidentally, came about as a result of the request of the last appropriations committee report prepared by Mr. Natcher. I will say more about this later.

Now let me talk a bit about the current NIH.

(See Kirschstein p. 4)

Kirschstein (continued from p. 3)

I think it is fair to say that we truly have an invigorated leadership.

Dr. Varmus has been with us officially now for eight months. He has excellent working relationships with Dr. Phil Lee, assistant secretary for health, and HHS Secretary Donna Shalala. These good relationships have meant that he has received a number of delegations of authority that are important to reinvigorating NIH. Among them is the authority to hire people into high level positions without awaiting PHS/HHS approvals, the first such delegation since the Senior Executive Service was established, and the only one in the department. He has made some important appointments:

Wendy Baldwin—deputy director for extramural research.

Michael Gottesman—acting deputy director for intramural research.

John Gallin—director of the Clinical Center.

Alan Leshner—director of the National Institute of Drug Abuse. The former ADAMHA institute joined NIH over a year ago.

William Paul—director of the Office of AIDS Research.

Anne Thomas—associate director for communications.

Dr. Varmus will also have an opportunity in the next several months to fill other important positions. Among them are: director of the National Institute of Neurological Disorders and Stroke; director of NIMH; and director of National Institute of Dental Research; director of the National Institute for Nursing Research; director of the National Institute of Arthritis, Musculoskeletal and Skin Diseases

Dr. Varmus, in another first, was given a seat on the National Science and Technology Council—a White House decision.

THE NIH BUDGET

The NIH budget request for 1995 now is in the mark-up phase. I hesitate to say anything too specific about House action—although details have already been published in newsletters—simply because this will likely not be the final 1995 budget. We do expect, however, that the NIH budget will end up somewhat less than the president's request, which was for \$11.4 billion and provided a 4.7 percent increase over FY 1994. This is only the second time in my memory that NIH probably will receive a smaller appropriation than requested by the president.

Our lack of incremental growth reflects government-wide efforts to contain discretionary spending. Of special concern to us is the fact that not only are all the institutes experiencing generally low "success rates" on investigator-initiated grants, but also that some institutes (especially those newly brought into NIH—Drug Abuse, Alcohol, and Mental Health) are experiencing very low success rates.

Based on efforts of public interest coalitions, the Office of AIDS Research at NIH is now reconstituted in law to receive all appropriated funds for AIDS research at NIH, and to allocate these funds to NIH institutes, centers, and divisions in accordance with a consolidated plan. Prior to this new legislation, Congress allocated funds for AIDS directly to the ICDS.

REINVENTING GOVERNMENT EFFORTS

NIH is reinvigorated and is taking a constructive look at its important functions and activities. Some are entirely at our own volition; others were requested by Congress. In looking at any changes for the next five or six years, we need to keep in mind that

NIH will have to take its share of government-wide reduction in employees mandated by the president. Our target would cut 2,250 employees by the end of 1999, a 14.9 percent reduction. We also have targets for GS-14 and higher positions. We believe we can manage these cuts through attrition. But it will require creative solutions to get the important work of NIH accomplished with fewer people.

Extramural

Extramurally, several experiments in progress aim to streamline the peer review system. These include:

- Triage review—in which applications that are viewed as "non-competitive" are weeded out of the review process early and receive only an abbreviated summary statement.
- "Just-in-time"—deferral of submission of certain "boilerplate" and specific budget detail until just before award planning.
- Electronic management of pre-award activities.

All of these and other extramural efforts, are "experimental" at this time. On July 14 we had a public meeting to which members of the extramural community were invited, to discuss these efforts before they are adopted more broadly.

Intramural

Many of you know that last year—leading up to the FY 1995 appropriations cycle—the Congress asked for an outside review of intramural research, with particular attention to the future of our aging Clinical Center. I began that effort prior to Dr. Varmus's arrival at NIH. The outside advisors—headed by Paul Marks and Gail Cassell—completed their work and recommendations are now being implemented by the institutes and scientific directors. Their

report (see related story on p. 1) recommends:

- Improve the process for review of senior scientists and scientific directors.
- Provide a greater "arms-length" relationship between institutes and their boards of scientific counselors in order to improve the quality of program review.
- Improve the tenure system through an NIH-wide tenure committee.
- Improve intramural training and encourage trainees to seek positions outside NIH following two to four years here. This would provide space and resources for recruitment of new trainees.
- Advertise tenure track positions more widely across the country. This recommendation is aimed, in part, at providing greater ethnic diversity.
- Streamline the procurement process and other administrative processes for intramural scientists and make the CRADAS—our agreements with private industry—more workable for both NIH scientists and industrial partners.
- Develop planning processes to determine what percentage of a given institute budget is devoted annually to its intramural program. This should not be an automatic decision. The percentage of the total budget of NIH devoted to intramural should not exceed the current rate of 11.3 percent.
- Plan for renewal of the Clinical Center facility at a more modest size than the current 450-bed facility. In fact, the FY 1994 budget includes money set aside for this planning process.

Diversity in the NIH Workforce

Dr. Varmus and I are working diligently on this issue, which has attracted the attention of Congress, the Administration, and the media to some extent. We believe that we have made important inroads, but have a long way

to go. It is not possible to change overnight the NIH employment profile, and it is especially difficult to do so when we have hiring freezes in place and full time equivalency (FTE) cut-backs pending.

Clinical Research Crisis

Many of you know that owing to a series of unfortunate occurrences in clinical research—the misconduct involved in the University of Pittsburgh breast cancer studies and the deaths of five patients in our own fialuridine (FIAU)/hepatitis B study—clinical research is under intense scrutiny.

This is very much on our minds, because we recognize the importance of public trust to our continuance of

clinical research. This fall a blue ribbon panel will look at several issues relating to clinical research: 1) What is appropriate monitoring of clinical trials (especially those that are large and multi-site trials)? 2) How should individuals who conduct clinical trials or are involved in clinical trials be trained? 3) Are grant applications for clinical research projects appropriately reviewed through the NIH peer review system?

So you can see that we have a full plate, yet there is much excitement in the scientific arena. We face many challenges, but there is great enthusiasm by all that despite these problems and issues, the purpose of NIH remains strong and the continued promise shines brightly.



At the NIH Alumni Association annual meeting on June 18, 1994, Dr. Earl R. Stadtman, chief, Laboratory of Biochemistry, NHLBI, (l) presents to Dr. P. Roy Vagelos the 1994 NIHAA Public Service Award, an etched desk plaque depicting the Shannon building. An accompanying framed citation states, "The 1994 Public Service Award is presented to Dr. P. Roy Vagelos by the National Institutes of Health Alumni Association: In recognition of his eminent career of public service as an accomplished research scientist, a distinguished academician and now as an internationally renowned business leader, the head of a major worldwide health products firm. Early in his career he served as a senior scientist at NIH for a decade, and as an alumnus has been actively concerned and generously supportive."

Research Festival (continued from p.1)

ics. Since 1986, he has also been a senior investigator for the Howard Hughes Medical Institute. From 1962 to 1965 he was a research associate in biochemical genetics at the National Heart Institute. After a year's stay at the Weizmann Institute in Rehovot, Israel, he returned to NIH, where he was a research medical officer, biosynthesis section, Laboratory of Biochemistry, NCI. In 1969, he became head, section on molecular genetics, Laboratory of Molecular Genetics, NICHD and from 1972 to 1980 was chief, Laboratory of Molecular Genetics, NICHD.

The symposium honoring Philip Leder and other participants (see sidebar) is of interest not only to NIH alumni, but also to present NIH scientists.

It is hoped that many NIHAA members will return to the Bethesda campus, attend the NICHD symposium, and stay to participate in the week of activities that will follow.

The 1994 NIH Research Festival will continue Monday afternoon, Sept. 19 with a poster session in the Research Festival tents in Parking Lot 10-D, southwest of Bldg. 10. This year's organizing committee is chaired by Dr. Richard Adamson, director of NCI's Division of Cancer Etiology. On Tuesday, Sept. 20, there will two symposia, both scheduled for the morning in Bldg. 10. In the afternoon there will be a gathering for the interest groups in the Festival tents. A variety of workshops featuring NIH scientists from NIH's diverse intramural program will be held the afternoon of Sept. 20. On Wednesday, Sept. 21 in the morning there also will be three symposia in Bldg. 10 and Bldg. 38A. There will be workshops the morning and afternoon of Sept. 21 located throughout the NIH campus. The final program and scheduling information with details will be

National Institute of Child Health and Human Development 1994 Distinguished Alumni Symposium

Developmental Biology and Contributions to Human Biomedical Research

Monday, Sept. 19, 1994 Masur Auditorium

8:45 a.m.

Dr. Arthur S. Levine, *NICHD scientific director*

Opening Remarks

Speakers

8:50 a.m.

Dr. William W. Chin

Brigham and Women's Hospital, Harvard Medical School
Molecular Mechanisms of Thyroid Hormone Action

9:20 a.m.

Dr. Gerald D. Fischbach

Harvard Medical School
Synapse Formation: A Role for Receptor Tyrosine Kinases

9:50 a.m.

Dr. Tasuku Honjo

Kyoto University Faculty of Medicine
RBP-Jk, A Transcriptional Regulator of Neurogenic Genes in Drosophila PNS

10:20 a.m.

Dr. Stuart H. Orkin

Children's Hospital, Boston, Harvard Medical School
Targeting Hematopoietic Development

10:50 a.m.

Dr. Shirley M. Tilghman

Princeton University, Howard Hughes Medical Institute
Parental Imprinting in the Mouse

11:20 a.m.

Dr. Philip Leder

Harvard Medical School, Howard Hughes Medical Institute
Limb Deformity: A Morphogenic Paradigm in the Mouse

11:50 a.m.

Presentation of Distinguished Alumnus Award to
Dr. Philip Leder by Dr. Arthur S. Levine

available late in August (see sidebar for the general scheduling).

Thursday, Sept. 22, and Friday, Sept. 23 have been reserved for the Technical Sales Association scientific equipment show in the Research Festival tents. There will be over 300 exhibitors; it is one of the largest shows on the east coast.

The Research Festival was started 9 years ago by Dr. Abner Notkins, former director of intramural research, NIDR. Efforts by Notkins, subsequent committee chairpersons, the addition of the Alumni Symposium first presented in 1990, and the NIH Special Projects Office headed by Thomas Flavin, have made the event a great success.

The booklet detailing the final scheduling of workshops and posters will be available at the end of August. For more information call the NIHAA office at (301) 530-0567 or the NIH Visitor Information Center at (301) 496-1776.



The NIH Distinguished Alumni Award is a replica of the statue "Healing Waters" by Azriel Awret, which is located near the escalator on the first floor of Bldg. 10.

Research Festival '94 General Schedule of Events

MONDAY, SEPT. 19

- | | |
|-------------------|---|
| 8:45 a.m.-12 noon | NICHD Distinguished Alumni Symposium:
Developmental Biology and Contributions of Basic
Science to Human Biomedical Research
Bldg. 10, Masur Auditorium |
| 1:00- 4:00 p.m | Poster Session
Posters on display in Research Festival tent, parking
lot 10-D, southwest of Bldg. 10. See poster listings
for titles and locations |

TUESDAY, SEPT. 20

- | | |
|-----------------|---|
| 8:30-11:00 a.m. | Symposium: HIV Pathogenesis and Therapy
Bldg. 10, Masur Auditorium |
| 8:30-11:00 a.m. | Symposium: Cell Cycling and Apoptosis
Bldg. 10, Lipsett Amphitheater |
| P.M. | Tent Picnic for Interest Groups
Workshops |

WEDNESDAY, SEPT. 21

- | | |
|-----------------|---|
| 8:30-11:00 a.m. | Symposium: DNA Repair
Lister Hill Auditorium, Bldg. 38A |
| 8:30-11:00 a.m. | Symposium: Imaging Techniques
Masur Auditorium, Bldg. 10 |
| 8:30-11:00 a.m. | Symposium: Genetic Predisposition to Diseases
Masur Auditorium, Bldg. 10 |
| A.M. | Workshops |
| P.M. | Workshops |

THURSDAY, SEPT. 22 and FRIDAY, SEPT. 23

- | | |
|---------------------|---|
| 9:30 a.m.-4:00 p.m. | Exhibits: Technical Sales Association (TSA)
Equipment Show |
|---------------------|---|

Research Festival tents in Parking Lot 10-D, southwest of Bldg. 10

Programs with complete listing of symposia, posters and workshop titles and locations will be available at the Visitor Information Center in Bldg. 10 and in 31A. Shuttle bus service will be available on regular basis throughout the NIH reservation during the festival. Parking spaces in the 41-B lot will be available, but limited in number. Registration is not required for any of the events. For more information call the NIH Visitor Information Center at (301) 496-1776.

News From and About NIHAA Members, and Foreign Chapters

Dr. Robert C. Bast, Jr., who was in the Biology Branch, NCI, from 1972 to 1975, left his position as director of the Duke Comprehensive Cancer Center to become head of M.D. Anderson's Division of Medicine on July 1. The division conducts a wide range of clinical trials and is responsible for nearly half of M.D. Anderson's 500 inpatient beds. The division's outpatient clinics see more than 1,000 patients a day. Bast will continue his research on the early detection of ovarian cancer.

Dr. Suzanne K. Beckner, a senior staff fellow at NIADDC from 1980 to 1985, has been appointed vice president for development by Alpha 1 Biomedicals, Inc., Bethesda, Md. She will manage new product development and support preclinical and clinical trials. Alpha 1 develops pharmaceutical products for treating cancer, immune disorders, and chronic viral diseases.

Dr. J. Claude Bennett, who was a research associate in molecular biology at NIH from 1962 to 1963, has been named president of the University of Alabama at Birmingham. He is continuing as Spencer professor of medical science. Recently he received the 1994 Robert H. Williams Distinguished Chair of Medicine Award from the Association of Professors of Medicine.

Dr. Paul A. Bunn, Jr., a section head in NCI's Division of Cancer Treatment from 1973 to 1984, is now director at the University of Colorado Cancer Center in Denver. He recently presided as scientific secretariat at the 7th World Conference on Lung Cancer held in Colorado Springs. This conference was organized by the University of Colorado Cancer Center and the International Association for the Study of Lung Cancer (IASLC). Bunn is the president-elect of IASLC.



Virginia Schroeder Burnham, who has been a consultant and member of advisory councils at NIH, is now a writer and consultant living in Greenwich, Conn. She has written two books: *The Two-Edged Sword*, and *The Lake with Two Dams*, in collaboration with Dr. William H. Hampton. Burnham's extensive volunteer activities culminated in her being knighted a Dame of Malta in 1985.

Dr. C. Jelleff Carr, who was chief, pharmacology unit, Psychopharmacology Service Center, NIMH, from 1957 to 1963, was recently named the recipient of the International Achievement Award of the International Society of Regulatory Toxicology and Pharmacology. He is the society's secretary and was founding managing editor in 1980 of its official journal, *Regulatory Toxicology and Pharmacology*.

Dr. Paul Carbone, at NCI from 1960 to 1976 in the Division of Cancer Treatment, Medicine Branch, now directs the University of Wisconsin Comprehensive Cancer Center. At the annual session of the American College of Physicians this past spring, he was

named a master for not only his many contributions to ACP but also his teaching of clinical medicine. A former ACP governor, he has served on the college's scientific program subcommittee, organized and arranged the "State of the Art" sessions, and lectured at the annual session.

Dr. Thomas C. Chalmers, director of the Clinical Center from 1970 to 1973, is a medical research consultant and also associate director of the Harvard School of Public Health's Technology Assessment Group. Recently he was advanced from the rank of fellow to master in the American College of Physicians for his accomplishments in the field of medical meta-analysis and his work to get research advances into medical practice faster.

Dr. Rita Colwell, a member of a microbiology training committee at NIGMS from 1970 until 1973 as well as other advisory councils of NIH, is president of the Maryland Biotechnology Institute at the University of Maryland. This spring, she and other Maryland officials inaugurated the construction in Baltimore of a new biomedical research center, which will house under one roof academic and industry researchers. Research at the center will focus on AIDS, sexually transmitted diseases, Alzheimer's disease, DNA, cancer and aging. Colwell said at the kickoff ceremony.

Dr. Michael P. Corder, a clinical associate at NIH, is now director of utilization review/quality assurance and chief of staff at the Bakersfield Family Medical Center in Bakersfield, Calif. He is a fellow of the American College of Physicians and a diplomate of the American Board of Medical Management.

Dr. Guy de Thé, research director of France's National Center for Scientific Research and chief of the epidemiology of oncogenic viruses Unit at the Pasteur Institute, last year celebrated 30 years of fruitful scientific collaboration with NIH. As a Fogarty-scholar-in-residence in 1993, de Thé worked, wrote and prepared for an international conference on retrovirology. He says, "I'm deeply grateful to NIH. For 30 years I have had such good relationships with so many people here. I feel that I'm part of the family."

Sol Eskenazi, whose NIH career was primarily with the Division of Research Grants from 1962 to 1979, writes that "since NIH retirement, I am a full time self-employed consultant in information systems involving health related matters." He adds that he received his pilot's license in 1990 and flies out of Montgomery Airpark in Gaithersburg. Almost completely retired, he spends winters in Florida and the rest of the year in Silver Spring.

Dr. Frederick Goodwin, director of NIMH since 1992, left that post in April to become a professor of psychiatry and director of the Center on Neuroscience and Psychiatry, and to establish a Center on Science, Medicine, and Human Values at George Washington University. On May 27, 1994, he presented the 21st Mathilde Solowey Lecture in the Neurosciences on "Neuroscientists and Psychiatrists: What Can We Teach Each Other?"

Dr. Jane Henney, who was deputy director of NCI from 1980 to 1985, most recently has been deputy director for operations at the Food and Drug Administration. In July 1994 she became the first vice president for health sciences at the University of New Mexico, Albuquerque. She will lead a newly organized structure that includes the school



of medicine, the colleges of nursing and pharmacy, and UNM's patient care.

Dr. Hussein M. Khaled, on a short visit to our office, reported that the NIHEA, the NIHAA chapter in Egypt, has met again and is proceeding with plans for a fund-raiser and a newsletter.

The logo of NIHEA (National Institutes of Health Egyptian Alumni)



Dr. Edwin H. Kolodny, a special fellow, Laboratory of Neurochemistry, NINDS, from 1967 to 1970, is Marden professor of neurology and chairman of the department of neurology at New York University School of Medicine. In March 1993, he received the school's Solomon A. Berson Medical Alumni Achievement Award in Clinical Science.

Dr. Marc E. Lippman, who was at NCI as head of the medical breast cancer section, Medicine Branch, is now director of the Vincent T. Lombardi

Cancer Research Center, Georgetown University, Washington, D.C. He received from the American Association for Cancer Research the 18th Richard and Hinda Rosenthal Foundation Award at its annual meeting in San Francisco. Lippman was cited for his contributions to the understanding of hormone action, particularly in breast cancer.

Dr. Ti Li Loo, at NCI from 1955 to 1965 as a pharmacologist, and formerly Ashbel Smith professor of pharmacology at the University of Texas M.D. Anderson Cancer Center, has returned to NCI's Division of Cancer Treatment as a special volunteer. He is also research professor of pharmacology at George Washington University Medical Center.

Gerald F. Meyer, who was at NCI as an executive officer in the Division of Cancer Etiology, has been for the past 8 years the deputy director of the Food and Drug Administration's Center for Drug Evaluation and Research. Earlier in the year the Pharmaceutical Manufacturers Association recognized him for his 1993 regulatory management contributions, which led to an average 3-month reduction in new drug review and approval time at FDA. Recently he has been named by Digital Equipment Corp., Maynard, Mass., director of development and regulatory affairs for its pharmaceutical industry business group.

Dr. Donald Morton, who was at NCI from 1960 to 1971, has received from the John Wayne Cancer Institute in Santa Monica its special Service Award for his work in cancer research. Morton is the institute's founding medical director and president. He founded the organization in 1981 at UCLA and moved it to St. John's Hospital and Medical Center in 1991.

(See Members p. 10)

Members (continued from p. 9)

Dr. Daniel Nixon, associate director in the Cancer Prevention Research Program at NCI from 1987 to 1989, has moved from his position as vice president for detection and treatment, American Cancer Society, to the Hollings Cancer Center, Medical University of South Carolina. He is associate center director for prevention and control, and professor in the department of experimental oncology.

Dr. Margaret Pittman, who spent her entire career in biologics research at NIH with the Bureau of Biologics (now Center for Biologics Evaluation and Research, FDA) became the first woman to be named chief of an NIH laboratory in 1958. Recently she has been incapacitated by a stroke and a broken hip and is now in a nursing home. She is being honored with an NIH lecture in her name. The first Margaret Pittman Lecture will take place in 1995.

William B. Page, who was in the Division of Research Services, 1958 to 1963, and in the Division of Research Facilities and Resources from 1963 to 1968, and the chief, Office of Architecture and Engineering, writes that since 1967 he "lives on Shenandoah Mountain inside the George Washington National Forest ... on the Virginia\West Virginia boundary. For the last 5 years I have served on the Comprehensive Planning Commission for Pendleton County, West Virginia."

Dr. James Reilly, a clinical associate in NCI's Surgery Branch from 1974 to 1976, is now with the Kings County Hospital Center in Brooklyn as director of surgery, and vice-chairman, department of surgery, at SUNY—Health Sciences Center at Brooklyn. In 1992, he was awarded a master of public management (health policy) from

Carnegie-Mellon University.

Dr. Mark L. Rosenblum, an NCI staff associate from 1970 to 1972, is chair of the department of neurosurgery and director of the Midwest Neuro-Oncology Center at the Henry Ford Hospital in Detroit. He also is acting chair of the Henry Ford Health System's Cancer Program and professor of neu-



rosurgery at Case Western Reserve University School of Medicine. In May 1994, he was honored with a certificate of achievement award from the Alumni Association of the New York Medical College. The Preuss Foundation has selected him to host an international seminar on brain tumor invasion for selected invitees in Detroit in fall 1994. Rosenblum's research focuses on the biological mechanisms of brain tumor cell invasion and the development of anti-invasive treatments.

Dr. Jeff M. Sands, a medical and senior staff fellow at NHLBI from 1983 to 1988, writes that "after leaving NIH I joined the faculty at Emory University in Atlanta. I was promoted to associate professor of medicine in 1993. I also serve as director of the renal fellowship

training program. Outside of work, my wife, son and I root for the Braves and we are looking forward to the Olympics. I was recently elected to membership in the American Society for Clinical Investigation."

Dr. Howard K. Schachman, who has served as an NIH advisor, and was a Fogarty International Center scholar-in-residence at various times between 1978 and 1982, is now professor emeritus in the department of molecular and cell biology at the University of California, Berkeley. He is the 1994 recipient of the Public Service Award from the Federation of American Societies for Experimental Biology, which honored his many years of leadership on the issues of scientific integrity and indirect costs. In February, he was appointed by Dr. Harold Varmus to be an ombudsman for the NIH extramural community. His job will be to visit academic and other research institutions to ask and answer questions, listen to problems and report back to Varmus.

Randy Schools, the general manager of the R&W at NIH and a member of the NIHAA board of directors, recently was honored by Channel 9 when he was one of nine recipients of "The One and Only 9 WUSA-TV Awards for Community Service." He was not only profiled in a special video production about the honorees, but also received a cash prize, half of which will be donated to charity. In addition, Schools received the Jefferson Award from the American Institute for Public Service.

Dr. Euan Scrimgeour, who was a visiting scientist in the Laboratory of Central Nervous System Studies, NINDS, from April 1984 to April 1985, reports that he is now in the department of medicine, National Guard King Khalid Hospital, in Jeddah, Kingdom of Saudi Arabia. He has offered to act

as coordinator and secretary if NIHAA is able to start a Saudi Arabian-Middle East chapter.

Dr. Maxine Singer, from 1956 to 1988 affiliated with both NIAMD and NCI, where she is scientist emeritus, is



now president of the Carnegie Institution of Washington. She recently received two honorary degrees, the first from Yale University and the second from Harvard University. The Harvard degree describes her as "a vital figure in the science of molecular biology and in the art of scientific administration," who established guidelines to help manage and regulate research involving recombinant DNA, and conducted research on repetitive DNA elements.

Dr. Kendall A. Smith, who was a staff associate at NCI, has moved from the Dartmouth Medical School department of medicine to become chief, Division of Allergy-immunology in the department of medicine at New York Hospital-Cornell Medical Center.

Dr. Jesse L. Steinfeld, deputy director at NCI, 1968-1969, and U.S. sur-

geon general, 1969-1973, received at the 7th World Conference on Lung Cancer, held June 26-July 1, 1994, in Colorado Springs, the first Joseph Cullen Award for the Prevention of Lung Cancer. Steinfeld was among the first in the scientific community to recognize the health hazards of passive exposure tobacco smoke, and has continued to work tirelessly on tobacco control.

Dr. Samuel O. Thier, clinical associate, NIAMD, 1962-1964, who was president of the Institute of Medicine of the National Academy of Sciences for 6 years, has left as president of Brandeis University to become president of Massachusetts General Hospital.

Dr. John Tuohy, who was a senior investigator and chief of the solid tumor chemotherapy service for NCI at the Clinical Center from 1953 to 1956, is in Saudi Arabia. He writes, "I am now directing a health maintenance and continuity of care program for senior officers in the Royal Saudi Air Force at the King Abdul Aziz Airbase in Dhahran, while maintaining my interest and participation in cancer chemotherapy ... For the past 10 years I have been associate clinical professor of medicine, King Faisal School of Medicine and Medical Sciences, Dammam, Saudi Arabia. In 1981, I received the U.S. Public Health Service Outstanding Service Medal after recalled to duty to serve as chief medical officer at Fort Indiantown Gap, Pa., with the Cuban Task Force. After the Gulf War, the U.S. Department of Defense presented me the Commanders' Award and Medal for Civilian Service during the three phases of that conflict. I received certificates of appreciation from the government of Saudi Arabia and Hungary for my services to their medical contingents."

Dr. Robert Whitney, who was at the National Center for Research Resources from 1971 to 1992, most recently as director, and was appointed deputy surgeon general in 1992, has retired from the Public Health Service. He is establishing a nonprofit founda-



tion to further develop and utilize the techniques learned from the studies of peregrine falcons for use in worldwide detection of biocides and environmental assessments.

Dr. Gary Williams, who was at NCI in the Etiology Division, 1969-1971, is now director of medical sciences at the American Health Foundation in Valhalla, N.Y. He writes of two events at the foundation: In November they will celebrate their 25th Anniversary with a program entitled "Toward Optimal Health: Examining Goals for Nutrition and the Environment." The foundation will also sponsor a course on the safety assessment of pharmaceuticals, Oct. 3-7. For more information about the course and the anniversary celebration, contact him at the American Health Foundation, 1 Dana Road, Valhalla, N.Y. 10597, (914) 789-7138 or fax (914) 592-3522.

President's Letter

The NIHAA's annual meeting was held on June 18 at the Lasker Center on campus to a standing-room-only crowd. Highlights of the occasion were the presentation of our Public Service Award and an update on NIH affairs by the deputy director.

The Public Service Award was conferred on Dr. P. Roy Vagelos by his first mentor at NIH, Dr. Earl R. Stadtman. Earl reviewed the honoree's career: his scientific contributions at the NIH as he progressed from clinical associate to acting laboratory chief; his scientific and educational achievements as head of the department of biochemistry at Washington University, where he succeeded another NIH alumnus, Arthur Kornberg, and the Coris, Carl and Gerti; his stellar performance as vice president for research at Merck; and, finally, his outstanding leadership as president and CEO of that pharmaceutical industry giant.

Earl noted that Roy had always responded generously to calls from NIH for guidance, having served on innumerable advisory panels, most recently the external advisory committee of the advisory committee to the NIH director. Examples cited of his commitment to public service were generous gifts from Merck, to the Children's Inn at NIH and to the nations of Africa. The latter by providing free of charge, a potent Merck-discovered anti-filarial agent for the treatment of onchocerciasis (river blindness), estimated to affect 40 million people in equatorial Africa and to blind 5 percent of them.

In acknowledging the award, Dr. Vagelos emphasized the importance of the continuum of innovation from basic science to commercial production and marketing for advancing the health of mankind and cited his concern that sight not be lost of these realities as the nation moves toward reforming its

Attention

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update* at 9101 Old Georgetown Rd., Bethesda, Md. 20814

Name

Home Phone

Home address

News, include dates/position at NIH and photo if possible

Suggestions for newsletter

Suggestions for NIHAA

health care system.

Dr. Ruth L. Kirschstein provided a terse but comprehensive review of development at the NIH over the last year or so, during part of which she served as acting director (see story on p. 3). The impact on NIH of the pan-government actions, emerging out of the vice president's National Performance Review, to "streamline the bureaucracy" by reducing employment by an average of 12 percent and by making disproportionately high cuts in the number of high-level employees—predominantly senior scientists and scientific administrators in the case of NIH—would appear, on first hearing, to presage severe damage to perhaps the finest organization ever created by government and to signal major troubles for scientists throughout the

nation, whether intramural or extramural. The report of the external advisory committee, mentioned earlier, also found this situation alarming. The realities are complex and the NIHAA is in the process of trying to get a comprehensive grasp of the details. A more complete appraisal will appear in the next issue of *Update*.

During the business meeting that followed, the chairs of the association's standing committees synopsized the activities in which their groups were engaged and provoked much lively discussion and many excellent suggestions. Adjournment was followed by a splendid reception, with renewal of "old acquaintance" and recital of old "war stories." Local alumni continue to demonstrate keen interest in, affection for, and loyalty to, NIH.

The Founding of the NIHAA Israeli Chapter

By Drs. Michael Sela and Sara Fuchs

On Nov. 14, 1993, the Israeli chapter of the NIH Alumni Association was inaugurated in Rehovot at the Weizmann Institute of Science. It was a founding meeting with the participation of close to 200 alumni. Dr. Ira Pastan, chief of the Laboratory of Molecular Biology, NCI, came especially to bring greetings from Bethesda and give the first Christian B. Anfinsen Lecture, on the topic "Recombinant Immunotoxins: New Agents for Cancer Therapy." It was particularly meaningful that Anfinsen himself was present, as his laboratory has been a great attraction to many Israelis. We both (Michael Sela in 1956-57 and 1960-61, and Sara Fuchs in 1965-68) were among the first to join his lab, and among the first Israelis at NIH. The information that reached us from NIHAA on the occasion of the inauguration of the Israeli chapter is that 642 Israelis have been at NIH over the years, and 40 of them are still there.

The dry numbers cannot express adequately our feelings about the times we spent at NIH. To us the years at NIH (and we continued our visits there, Michael Sela in 1973-74 and Sara Fuchs in 1985-86 and 1992-93) were among the most happy and certainly the most productive and meaningful of our careers, and we know that the same has been true for many of our Israeli colleagues.

The NIH is a research institution unparalleled in its scope, its efficiency, its spirit and its success by any other science complex anywhere in the world. We are sure that the Israelis are not unique in having a deep feeling of gratitude and of loyalty to the premiere institution to which they owe so much

in terms of their scientific education and research. The friendships built up during the years at NIH are again part of our lives, both with those who stayed permanently at the various institutes in Bethesda, and those who moved to so many other places in the United States, as well as to other parts of the world, thus making NIH responsible for a most important and intricate network of scientists.

The contribution of NIH to the improvement of human health has been enormous, and in some areas even unique. There is no doubt in our minds that this has been the result of a free quest for a better understanding of life and nature, and that the major breakthrough came as a result of basic rather than mission-oriented research. This most important take-home lesson has been well learned by us, the Israeli scientists and physicians who have had the privilege of prolonged visits at NIH.

We are very happy that this has not been one-way traffic as quite a number of NIH scientists have spent lengthy periods of research at the Weizmann Institute of Science in Rehovot, the Hebrew University in Jerusalem and other institutions of higher learning in Israel. Moreover tens, and maybe over the years it would be more correct to say hundreds, of NIH scientists have visited Israel for brief periods of time, participating in colloquia, symposia, workshops, scientific advisory committees, study weeks, schools and congresses. Quite a few of them have become more directly involved in helping the scientific development of our institutions. We shall mention by name only two: Christian Anfinsen who has been a scientific member of the board of governors of the Weizmann Institute, and has chaired for many years its scientific

advisory and academic committee, and Maxine Singer, who is chairing this committee at present.

We feel it is very appropriate that the inauguration of the Israeli chapter of the NIH Alumni Association has been accompanied by the first lecture in the Anfinsen's lectureship, which has been established to promote continuation of the long established ties between NIH and scientists and physicians at virtually all of the major research institutes in Israel.

We are most thankful to the committee of Chris Anfinsen's former students (headed by Alan Schechter of NIDDK) who, with the help of the Foundation for Advanced Education in the Sciences and the NIH Alumni Association, have been most instrumental in creating this lectureship. The committee of Anfinsen's former students desired to establish a mechanism to allow a lasting recognition of Chris's unique scientific and personal heritage. It was decided to endow a lectureship in Israel to emphasize the scientific and personal relationships between Anfinsen's laboratory in particular, the NIH in general, and Israeli biomedical science.

The 1993 lecture delivered by Dr. Ira Pastan represents the first of what we hope will be a long, continuing series to which we will invite distinguished scientists from NIH or from the large number of NIH alumni. Pastan has been a mentor to many young scientists, including many Israeli scientists who have been attracted by his excellent science and very active laboratory.

On the occasion of the inauguration of the Israeli chapter, its members wish the parent NIH Alumni Association successful and constructive development for the sake of its members, for the sake of the NIH community, and for the sake of the progress of life sciences worldwide.

Intramural Research (cont. from p. 1)

panel including NIDDK grantee Dr. Elizabeth Neufeld of UCLA's medical school, Dr. P. Roy Vagelos of Merck and Co., Inc., and NCI scientist emeritus Dr. Maxine Singer of the Carnegie Institution. Marks, Cassell and Varmus, Kirschstein, and Dr. Michael Gottesman, acting NIH deputy director for intramural research, were on hand at a May 4 Bldg. 1 media briefing to announce release of the EAC's final draft report. The full advisory committee to the director (ACD) discussed the report at its June 2 meeting here.

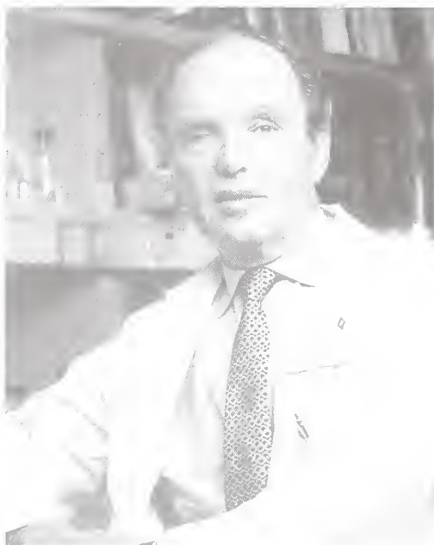
The IRP "consumes roughly 11 percent of our 11-billion-dollar budget," said Varmus, in introductory remarks at the briefing. "This is one of the government's proudest possessions. It is a scientific endeavor carried out by government scientists that has a remarkable track record, has trained 50,000 biomedical scientists over the course of its history and has made a number of famous achievements in biomedical science."

In response to a request by the House Labor and Health and Human Services appropriations subcommittee—communicated via its fiscal year 1994 report—Varmus was directed "to review carefully the role, size, and cost" of the IRP.

Amid tightening constraints on federal funding of biomedical research and stemming from concern expressed by Congress about the overall mission and management of NIH, the IRP review considered tough questions on the program's quality, NIH's allocation of resources to the IRP compared with the Extramural Research Program, and the current condition and projected lifespan of the agency's physical facilities—especially the Clinical Center. Congressional concern on these three issues had come to the forefront over the last 2 years, according to the executive summary of EAC's report.

Critical evaluation is as important for

the intramural program as it is for the extramural program, Varmus said, citing the need for government scientists and grantees to be held to comparable standards of peer review. Varmus also noted "that there has been, at least in some quarters, the perception that per-



Dr. Paul Marks

haps there's been some slippage in quality in the intramural program, some isolation from the mainstream. These views have been articulated in several places, including *Science* magazine."

Reviews by outside groups is not new, Varmus pointed out, referring to external committees formed as early as the 1970's to examine the performance of the IRP. Marks agreed, adding that he and several other EAC members had also served on some of the earlier committees. The EAC report also mentioned prior reviews: "At least three previous advisory committees have made recommendations for improving the IRP, some of which have been implemented but many of which have been ignored. This may be attributed in part to systemic problems that transcend NIH and require major administrative or legislative remedies and in part to resistance to change within a

large institution."

However, Marks said, the EAC is more hopeful that current suggestions will be implemented.

"Some of the recommendations we are making are certainly not new," he commented, "but we feel they are no less important. We have a certain sense of optimism that these recommendations, some of which have been on the books for years, may be implemented this time around. This optimism is due to the new leadership of NIH in the person of Harold Varmus and his staff, and to the support indicated to us from [HHS] Secretary Shalala and Assistant Secretary Phil Lee." Copies of the EAC report were distributed to Shalala, Lee, some congressional staff, the NIH scientific directors and ICD directors several weeks before the briefing.

Ensuring strict quality control was by far the major consideration of the EAC, said Marks.

The first two recommendations addressed enhancing the review process for IRP senior scientists and scientific directors. A standing advisory committee to the deputy director for intramural research should be appointed, chaired by the DDIR and composed mainly of the chairs of ICD external boards of scientific counselors. This committee would "provide ongoing review of the processes of quality control across NIH," said the EAC report. In addition, the appointment process for these counselors should be changed "to assure expert, arms-length membership"; the review process itself should be more explicit and the criteria to evaluate scientific directors should be more rigorous.

"One of the criticisms we've had in the past is that sometimes the board of scientific counselors may be too closely wedded to the very groups they're being asked to review," said Varmus, noting that this recommendation was already in early stages of implementation. "While the advisory function has

worked well in many cases, there is the general belief that it may not be as stringent as the extramural review process in which there is perhaps less fraternalism."

Of the 11 major recommendations the EAC made, four involve the recruitment, retention and tenure of researchers. Recommendation 3 seeks to strengthen the tenure process by assembling a 12- to 16-member NIH-wide tenure committee to review all potential appointments to tenure and tenure-track positions. Currently scientific directors in individual ICDs perform this function. Adoption of this recommendation would provide more uniformity across ICDs. In addition, not only IRP scientists would be considered for these tenured posts; ERP researchers also would be actively recruited.

Recommendation 4 endorses strict adherence to 2- and 4-year training positions by trainees. The EAC found that in order to keep a fresh IRP scientist pool, trainees should be encouraged to seek positions outside NIH at the conclusion of their training terms. Marks acknowledged that the IRP "is probably the largest training program of biomedical scientists in the world."

Recommendation 5 pertains to the need to provide ethnic diversity in intramural training programs. The EAC noted that IRP efforts in this area would do well to link better with such successful extramural programs as Minority Access to Research Careers and Minority Biomedical Research Support. Aggressive mentoring was also recommended as a method to attract scientists from underrepresented groups.

"We would all agree that the best way to attract the very best trainees is to assure they have the best mentors," said Cassell. According to the data the EAC used, 5 percent of IRP trainees are minorities and 36 percent are women. "But this is not necessarily enough," said Marks.

In recommendation 11, the EAC suggested that current classification of the IRP as an HHS administrative expense be discontinued. By considering intramural scientists this way, EAC maintains, irrational budgetary procedures that compromise quality result. In



Dr. Gail Cassell

other words, cost-saving maneuvers such as an across-the-board elimination of GS-13s, which may be effective in other government agencies, would only wreak havoc at NIH, a federal institution in which most top scientists are already compensated beneath their private-industry counterparts.

Recommendation 6 affirms that the IRP should represent no more than the current rate of 11.3 percent of the total NIH budget. A yearly planning process, the guidelines for which should be outlined in writing, was also recommended for each ICD to determine the allocation of resources to both the IRP and ERP.

In recommendation 7, the EAC added its approval to a measure mentioned by Varmus early in his young tenure at NIH: that NIH serve as a model for the president's "reinventing government" proposal, which intends

to cut red tape and streamline some federal administrative procedures including procurement and staff travel.

Recommendation 8 addresses the IRP's partnerships with industry. EAC recommended that the processes for implementing and monitoring cooperative research and development agreements be more broadly and clearly communicated.

The final two recommendations involve NIH's Bethesda campus and physical facilities, specifically the Clinical Center. In short, the CC should gradually reduce from 450 to 250 its inpatient-bed capacity. "There is a need for renewal of the Clinical Center," the recommendation begins. In line with this overhaul should be an evaluation of current IRP projects to elucidate and phase out weaker ones, the EAC found. Funds from this weeding process could then be used to revive the CC. Under no circumstances should ERP funds be diverted to CC renovation, the report noted. If sufficient funds cannot be reallocated from downsizing efforts, then Congress should allocate the balance of necessary resources.

Recommendation 10 is related: As a result of the suggested purging of weak programs, more space and resources should become available to bring off-campus IRP projects back to the Bethesda fold. Marks estimated and Gottesman confirmed that roughly half of IRP clinical facilities and research laboratories exist off campus.

The next step for the report—beyond presentation at the ACD meeting—is endorsement by HHS officials, namely Shalala and Lee. Varmus has already voiced his support for the recommendations and, in fact, has begun implementation of those within his authority. Official congressional response is also pending, but, the EAC coauthors, Varmus and Gottesman indicated that they anticipate favorable feedback.

Shannon (continued from p. 1)

Shannon had few heroes but John Wycoff's picture was on his desk as long as I knew him. After residency, he decided that he needed to learn more science. His first choice was biochemistry, but times were tough and the chairman of biochemistry, R. Keith Cannon, could pay two conventional graduate students for the money to pay one physician. Homer Smith was better disposed or had more resources, so Shannon received his Ph.D. in physiology at NYU in 1935. Soon, he and a medical school classmate, Alice M. Waterhouse were married and they were blessed with three children, one of whom died in childhood. Jim and Alice were a marvelous pair, with Alice the warm, down-to-earth and captivating hostess that made visiting the Shannons such a pleasure for the people who worked for and with her husband.

Shannon had a spectacular career. His bibliography includes about 100 scientific and technical publications, along with scores of contributions to the literature on the administration of research programs, on public policy with respect to science and to scientific and medical education and on relationships between government and academic institutions. He served on the faculty of the NYU School of Medicine in the departments of medicine and physiology from 1932 to 1946 and made his mark on science early, with pioneering discoveries in animal as well as human renal physiology and in clinical nephrology. In 1941, he was appointed the first director of the NYU Research Service at the newly opened Goldwater Memorial Hospital, a 1,600-bed institution dedicated to the treatment of chronic diseases. Shortly thereafter, his 100-bed research service with its supporting laboratories became the center for the clinical evaluation of new antimalarial drugs for which U.S. forces in

the South Pacific were in urgent need; early in the war, Japanese conquest of the world's major quinine producing areas had cut off the world's supply of that drug. During the war years,

Any appraisal of James A. Shannon by his students, immediate employees, collaborators, colleagues or friends should probably bear a disclaimer. To virtually all of them, Jim Shannon in his prime, "warts and all," was a heroic figure. They almost universally rated their associations with him as the most enriching and memorable of their careers. I had the great good fortune to work directly for him for 6 years, to work within his immediate ambit for an additional 8, to have spent 8 more under him but at a remove and to have conducted extensive oral history interviews with him after his retirement. My biases are undisguised.

—Thomas J. Kennedy, Jr.

Shannon served as a member of the board for coordination of malarial studies of the Office of Scientific Research and Development and as chairman of the board's panel on clinical testing of antimalarials.

When the malaria project ended, the arrangements Shannon had struck earlier with NYU to chair its department of pharmacology collapsed. To the horror of his closest friends in academe and against their advice, he accepted the

directorship of the Squibb Institute for Medical Research where he remained from 1946 to 1949 and where he also eventually served as a corporate vice president. While at Squibb, he undertook an extensive reorientation of the institute's program and, inter alia, stimulated the parent company, E.R. Squibb, to produce and market the first of the aminoglycoside antibiotics, streptomycin.

In 1949, to the further horror of his academic peers, he was persuaded by Gene Dyer and Norm Topping, the then director and associate director, respectively, of the NIH, to join the National Institutes of Health as the associate director (in charge of research) of the newly created National Heart Institute, where he in turn recruited the charter staff for that institute's intramural program. Shannon's first step was to identify about a dozen major research themes whose pursuit he felt appropriate for the fledgling intramural heart institute—cell biology, chemical pharmacology, C-V physiology, kidney and electrolyte metabolism, natural products, technical development, cardiovascular surgery, to name a few. He then proceeded to solicit from his vast acquaintance with national and international leaders in these fields the names of the most promising emerging scientists. He carefully cross-checked each potential candidate, compiled a rank-ordered short list, packed his bags and went recruiting, mostly for laboratory/branch chief and clinical/research associates but with an ever-open eye for other talent. An indication of his sharp eye for as yet unrecognized talent is that two of his early recruits—Chris Anfinsen and Julie Axelrod—later won Nobel Prizes and two others—Don Frederickson and Jim Wyngaarden—later punctuated distinguished careers by serving as directors of NIH. In very short order, he had assembled, provided

research resources to and had at work a group that would soon come to be recognized as one of the most distinguished in the world.

Three years later, in 1952, he assumed campus-wide responsibility for the intramural research activities of all of the institutes at NIH. The intramural research activities of long established institutes were subjected to searching scrutiny, a fair amount of blood was spilled and the highest standards of excellence became the imperative for intramural NIH across the board. Under his guidance, the opening of the 500-bed Clinical Center—an event that had engendered no small amount of apprehension within the staff because it brought sick human beings to the campus for the first time ever came off with only minor hitches.

In 1955, he was appointed NIH director, the position from which he retired from government service in 1968. Thereafter, he served as an advisor to the president of the National Academy of Sciences and in 1970 became professor of biomedical sciences at Rockefeller University, from whence he retired in 1975.

In every capacity in which he operated, Shannon's performance was judged superlative and he garnered a cornucopia of recognitions: election to every important scientific society in his field, including the National Academy of Sciences; honors galore—among the more significant, the Public Welfare Medal of the National Academy of Sciences, the Rockefeller Public Service Award, the Presidential Distinguished Federal Civilian Service Award, the National Medal of Science, the Abraham Flexner Award and the Alan Gregg Lectureship of the Association of American Medical Colleges, the Kober Medal of the Association of American Physicians, Hadassah's Myrtle Wreath—; and a

score of honorary degrees. He had the good fortune to enjoy, during his lifetime, the full panoply of accolades that his achievements warranted. But Shannon's most significant honor and most enduring memorial is the institution, the modern NIH, that he molded and formed during his 13 years as its director. Those who did not witness or participate in the events of those memorable years may find it difficult to

*A Memorial Service
for
Dr. James A. Shannon
will be held on
Friday, Sept. 23, 1994
10:00 a.m.
Wilson Hall,
The Shannon Bldg.*

comprehend the transformation he wrought when he took the reins at NIH in 1955, 39 years ago. The only living scientists who have experienced the transition from the pre- to the post-Shannon era are all septuagenarians. Scientists approaching retirement today began their research careers when the Shannon-induced changes had been in progress for almost a decade. The present director of the NIH, Harold E. Varmus, completed his residency training at Presbyterian Hospital in 1968 and came to NIH as a clinical associate for his introduction to research just as Shannon retired; his predecessor,

Bernadine P. Healy, had just finished her sophomore year in medical school at that time. Neither experienced the environment that prevailed in the world of biomedical research in the pre-Shannon era. In fact, "hardly a man is now alive who remembers ..."

Shannon brought to his new position a few abiding convictions: profound faith in the power of science to transform medicine into a far more effective instrument for improving the human condition; a keen sense that the scope and intensity of the national research effort was pitifully short of what it ought to be; and the persuasion, reached during the war, that only the federal government had pockets deep enough to provide the resources necessary to actuate the scientific potential of the country. The directorship gave him the platform from which, with long enough levers, he would be able, according to Archimedes, to move the world. In FY 1956, the year before he took over, NIH had awarded to all U.S. academic institutions about \$59 million for research grants, training grants and fellowships. Data are imprecise but, as best one can estimate, these institutions also received probably no more than about \$30 million for health related research from other federal agencies—NSF, DOD, AEC—and perhaps an additional \$50 million for similar purposes from private sources. The total national expenditures for health related research in academic institutions were thus about \$140 million, an amount that, adjusted for inflation, is equal to the sum of 1993 NIH awards to the 5 or 6 most research-intensive medical schools.

Shannon quickly tackled two major impediments to the realization of his vision—research space and trained personnel.

- The Health Research Facilities

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Shannon (continued from p. 17)

Construction Act of 1956 became the vehicle for eliminating the first. The initial awards under the authority were made during his first year in office and, until it became a casualty of the Viet Nam war in 1968, it provided \$473 million to fund 1,485 construction projects that remodeled, replaced or added about 19 million net square feet of modern laboratory space, housing an estimated 80,000 research personnel. In this effort, 407 different public and private non-profit recipient institutions matched the federal awards with \$635 million of their own funds. Taking inflation into consideration, the total expenditures over the lifetime of the program would equate to more than \$5 billion in 1993 dollars.

- Training programs were expanded rapidly and reoriented to emphasize scientific rather than clinical training; later, the research career development and research career award programs for the development of research faculty were inaugurated; and in 1964, the Medical Scientist Training Program (MSTP), leading to dual (M.D. and Ph.D.) degrees was established.

Additional changes followed quickly.

- The effectiveness of the research grant program was enhanced by increasing allowable costs, so that by 1969 these approached the average size of a contemporary award, and by creating new types of research grants—program projects and centers—that broadened the scope of a research endeavor and facilitated interdisciplinary research.

- Targeted research, funded through research contracts, was pioneered by the Cancer Chemotherapy National Service Center.

- In response to perceived special needs, a national system of Primate Research Centers was created, as also were research resource programs such as general and special clinical research

centers and computer centers.

- Assistance to sponsoring grantee institutions through formula grants—originally called general research support and, later, biomedical research support grants—were started in 1960.

- Increasing program complexity coupled with expanding opportunities necessitated the creation of new organizational entities: the Center for Aging Research (1957); the Division of General Medical Sciences (1958); the Center for Research in Child Health (1961); the Division of Research Facilities and Resources (1962); the National Institute of Child Health and Human Development (1963); the National Institute of General Medical Sciences (1963); the Division of Computer Research and Technology (1964); the Division of Regional Medical Programs (1966); the Division of Environmental Health Sciences (1967); the John Fogarty International Center for Advanced Studies in the Health Sciences (1968); the transfer of the National Library of Medicine to the NIH (1968); and the National Eye Institute (1968).

By the time of Shannon's retirement in the summer of 1968, the NIH budget that he had inherited, adjusted to account for the loss of the National Institute of Mental Health in 1967 (about \$65 million), had grown 20-fold to about \$1,300 million; the number of research grants grew from 3,300 \$10,000 awards to 12,600 \$50,000 awards; training grant awards had increased five-fold and the dollar value of each had tripled; and fellowship awards had almost followed suit. The face of academe had been given a significant lift. And the nation's biomedical research enterprise had been changed beyond recognition.

Much has been written about the fortuitous—and probably never again likely to recur—concatenation of events that operated during Shannon's tenure.

But while the time and place might have been right, no one closely associated with the cascade of successes during that epoch will ever be persuaded that any person in the nation other than Jim Shannon could have made them come to pass. The array of talents and skills that I saw him bring to the job—others may have different perceptions—deserve to be catalogued.

- Intelligence, above all else; he was certainly the smartest person that I ever met.

- Perhaps the next most critical was—call it what you will—vision, imagination, creativity. His sense of where biomedical science ought to be and his conviction that getting it there was a practical and feasible ambition was virtually his alone at the start and picked up adherents only after the "roll" was well underway. Possessed of this grand design, Shannon's agenda was always far broader than that of others. What has been characterized as his opportunism was simply emplacing a tile that appeared suddenly from an unexpected quarter into the proper place in his visionary mosaic. The story is told of a Saturday morning meeting set up, after extensive staff preparation, with the chief clerk, Herman Downey, of the Senate Appropriations Subcommittee—Sen. Hill's principal staff person for appropriations—to discuss the pressing need for a new administration building to house the staff who were bearing the crushing work load engendered by the burgeoning extramural program. To the dismay of his staff, just a few minutes into the meeting, Shannon dropped the issue—charts, statistics, audio-visuals and all—and introduced a new one. By the time the meeting ended, Shannon had picked up a promise—later reified—to fund two new intramural research buildings containing 500,000 gross square feet of space for NCI and NINDS (Bldgs. 36 and 37). After Downey departed, he instructed

staff to rent more space for the administrative functions. He, and he alone, had detected almost as soon as the meeting began that Downey didn't think Sen. Hill would want to defend on the floor of the U.S. Senate the appropriation of funds for an administration building and decided to try for a different brass ring.

- He also was possessed of unbounded self-confidence and never harbored a second's doubt about the correctness of his decisions. One of his colleagues described him as a guy perennially "sure he could belt one out of the park" whenever such became necessary. Many of us witnessed him doing exactly that on many occasions. This should not be read as arrogance. Shannon sought advice continuously, always soliciting the views of the most critical thinkers he could find on the topic at hand, and he was a very good listener. But when he had heard it, digested it, integrated it and come to a conclusion, he acted with confidence and serenity, whatever outcries might ensue.

- Shannon was extraordinarily single-minded in every endeavor he undertook. He had essentially no hobbies, avocations or outside interests—maybe a little gardening, off-and-on interest in hi-fi system design, more for the fidelity than the music. He was not given to small talk and was utterly preoccupied by the task to which he had committed himself. Predictably, retirement would be difficult for such a person. He resolutely eschewed contact with his successors unless they sought his counsel because of his belief that outside meddling was intolerable. He had been singularly free of this as NIH director. His bosses, the surgeons general of the Public Health Service (Len Scheele, Lee Burney, Luther Terry and Bill Stewart), for a brief period, the assistant secretary for health, Phil Lee, and the departmental secretaries

(Marion Folsom, Arthur Flemming, Abe Ribicoff, Tony Celebreeze, John Gardner and Wilbur Cohen) had given him unusually free reign, recognizing that his use of it would make their responsibilities easier and enhance the reputation of their bailiwicks.

- Another Shannon priority was to master "how the game was played"; he did and so became a quintessential bureaucrat, in the best sense of the term. His mastery helped him find the shortest distance to whatever was his goal. He's been called a good Irish "pol" but I found him as apolitical as anyone I've ever known. He did however identify those institutions and individuals whose help he needed to achieve his objectives and cultivated them assiduously, skillfully and successfully. Early in his tenure, he forged an unlikely troika with the patrician senator from Alabama, Lister Hill and Rep. John Fogarty, who before election to the Congress was an official in the bricklayer's union. Their close collaboration lasted until Fogarty's death and Hill's retirement. They were, to a man, dedicated to the same broad purposes; the two legislators relied on Shannon more than on any other individual to tell them how to get there. He cultivated the departmental secretaries, with the knowledge and approval of the surgeons general, with special care since they had access to the President. During my time around the front office, hardly a day passed without a call to or from the secretary. The Bureau of the Budget (BOB), later the Office of Management and Budget (OMB), was a tougher nut to crack; there was plenty of mutual respect but not much warmth because Shannon regularly beat them at their own game. I should, however, note that one of his BOB/OMB adversaries in later years described the Shannon era as the period when BOB/OMB was engaged in building the nation's capacity for health

research. Shannon vested a lot of energy in cementing relationships with the President's science advisors, George Kistiakowsky, Jerome Wiesner and Donald Hornig, their office (then the Office of Science and Technology), and their functions, principally the President's science advisory committee.

- Finally, Shannon had a remarkably pragmatic and eclectic outlook. Long convinced of the need for deeper scientific penetration of medicine as the *sine qua non* for progress in the latter field, he obviously was a strong proponent for fundamental research. But he was also as intensely concerned as anyone in Washington about clinical applications and was wont to remind his scientific and institute directors on frequent occasions to be alert for opportunities to apply advances in basic knowledge to the improvement of the management of human disease.

Shannon was not just a wheeler/dealer working in the vineyard of the lord. He presided over a large institution—a staff of 6,300 when he became director and 13,300 at the time of his retirement. He was a hands-on manager with an omnivorous appetite for detail. But he reposed great confidence in his staff, delegated freely and encouraged initiative. The keenness of his insights into what it took to operate a big program responsibly and accountably was a source of frequent surprise and astonishment to fledgling staff members, as was the level of detail to which he was knowledgeable about the programs of the individual institutes within NIH. Much of his knowledge came from the intense concentration he devoted to the budget process—negotiating with institute and division directors, assembling their submissions, defending the NIH submission before the Public Health Service, the department and the BOB/OMB, constructing and arguing

Shannon (continued on p. 20)

Shannon (continued from p. 19)

the appeals, reviewing proposed Congressional testimony of NIH units and making his own annual statements to the House and Senate. Shannon was at the witness table throughout all NIH budget hearings, reinforcing the testimony of his institute directors, deflecting criticism and seizing upon any new opportunities that might arise. If asked, as he often was, to help in the preparation of appropriations committee reports, he volunteered with alacrity. I doubt that any federal official, before or since, has been as respected by the congressional committees that held jurisdiction over their agency as was Shannon. He knew how to make organizations work well and how to make his lieutenants work in concert for common cause. His was always a high morale and happy ship.

What manner of man? Tall, trim,

quiet, soft-spoken, modest, unassuming, totally unimpressed by the plaudits that came his way, apparently relaxed and easy-going, open, straight-forward, undeviating and, above all, dispassionate. He had a great capacity to put setbacks and unpleasanties behind him quickly, to avoid recriminations and to waste no time or energy nursing grudges. I saw Shannon angry only once and for good cause; the anger dissipated in seconds when he recognized, and said, "I can't chew him out, I need him too much." His standards and expectations were high. Those who failed to meet them more than once or twice never got any more assignments. If an old friend called to ask for information on, or help in preparing an application for some new support device, he'd always respond generously, occasionally assembling half a dozen senior NIH staff people to brief

the applicant group. But the final word was always that their fate would be decided by the study section. Personal attachments never got in the way of dispassionate and objective judgement of performance. Yet he always seemed to be able to find time to advise and counsel those who sought such. Stories abound of spontaneous acts of kindness, thoughtfulness and generosity. There are a thousand Shannon stories waiting to be told.

Jim Shannon did have his "warts." He was no saint, he made some mistakes and was surely not perfect. But these flaws are dwarfed into utter insignificance by his monumental contributions to the structure of the enterprise of biomedical research at home and abroad, surely the finest achievement of American science in the second half of the 20th century. We shall not soon see his like again.



A photo taken on Aug. 23, 1966, showing attendees at a meeting of NIH consultants held in the Clinical Center auditorium. Seated (from l) are Dr. Philip R. Lee, assistant secretary of health and scientific affairs, DHEW; Dr. John F. Sherman, associate director for extramural programs, NIH; Dr. Stuart M. Sessoms, deputy director, NIH; Dr. William H. Steward, surgeon general, PHS; Dr. James A. Shannon, director, NIH; and John W. Gardner, secretary, DHEW.

Science Research Updates

Fluoride Offers Hope for Treating Osteoporosis

Treatment with fluoride and calcium supplements prevents new spinal fractures and helps rebuild spinal bones in patients with osteoporosis, according to interim results from an ongoing clinical trial at the University of Texas Southwestern Medical Center at Dallas. The results offer hope for a new means to slow or possibly reverse this common disorder.

"Our findings show that this approach can greatly reduce new fractures, and they support the hypothesis we've had since the very beginning of this work," said Dr. Charles Y.C. Pak, distinguished chair for mineral metabolism and principal investigator for the university's Clinical Research Center. "That is, given in proper amounts with adequate calcium, fluoride is a means to form normal bone."

"Current therapies for osteoporosis put a brake on the bone loss but don't make it stop, so they really work best as preventives. These preliminary findings show that fluoride safely rebuilds already weakened, fragile bones," said NCRR director Dr. Judith L. Vaitukaitis. "If this therapeutic effect is sustained, fluoride will yield the first effective means to reduce the risk of fractures once osteoporosis sets in."

"There are currently very limited treatment options for women or men with established osteoporosis. If the bone-forming capacity of fluoride can be harnessed to build healthy new bone, it will provide an important alternative therapy," said Dr. Joan McGowan, chief of the NIAMS Bone Biology and Bone Diseases Branch.

About 25 million Americans have osteoporosis, in which progressive bone loss and decay cause frequent

fractures with associated disability and death. Physicians typically aim to prevent or control osteoporosis using estrogen replacement therapy, calcium supplements, and the drug calcitonin, all of which slow bone loss. Fluoride, in contrast, stimulates the body to produce new bone.

In their article, Pak and his colleagues report interim results from treatment of 99 postmenopausal women with osteoporosis, randomly divided into two groups. The first group—48 women treated an average of 34 months—received a two-part regimen with daily calcium citrate supplements and cyclic (12 months of taking the drug followed by two months off) treatment with slow-release sodium fluoride. The second, placebo group—51 women followed for an average of about 30 months—received calcium citrate and placebo pills on the same schedule.

During this period, patients in the placebo group developed more than twice as many new spinal fractures (26 new fractures) as patients taking the fluoride/calcium combination (10 new fractures). In addition, scientists found that bone mineral content, measured in the spinal bones, rose by 4 to 6 percent among patients in the active treatment group after each fluoride cycle but did not change in the placebo group.

The interim results from the trial, supported by NIAMS and NCRR, appeared in the Apr. 15 issue of *Annals of Internal Medicine*.

Earlier studies have shown that high fluoride intake can lead to defective bone and cause such side effects as severe diarrhea, gastrointestinal bleeding, stress fractures, and increased non-spinal fractures. However, investigators in the current trial have not seen any significant side effects among

treated patients. Moreover, they believe that the new bone was well formed, as indicated by the decrease in new spinal fractures.

Pak suggests that these results are due to better calcium dosing and use of slow-release sodium fluoride, which avoids high peaks in blood fluoride levels and passes through the stomach before breaking down. The fluoride preparation used in the trial is an experimental drug and is not available on the market.

Scientists will continue the study for about 2 more years to determine if benefits from the new treatment are sustained. They also plan a second study in women who have bone thinning but do not have fractures in order to assess the treatment's potential for fracture prevention in early osteoporosis.

—Frances Taylor and Elia Ben-Ari

Hormones May Offer Treatment for Insomnia

Scientists at the Massachusetts Institute of Technology Clinical Research Center have shown that tiny oral doses of melatonin can put people to sleep—findings that suggest that melatonin may offer an alternative to hypnotic drugs such as Valium, frequently used to relieve insomnia. Scientists say their results also suggest that melatonin plays a key role in inducing sleep.

"As you age, the amount of melatonin that your body secretes each evening from the pineal gland decreases and the incidence of sleeping difficulties increases. I see melatonin as being potentially useful, particularly in those who don't secrete enough of the hormone," said Dr. Richard Wurtman, program director for the MIT Clinical

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Updates (continued from p. 21)

Research Center and principal investigator in the current study. Results from the research, funded in part by NCRR and NIMH, appeared in the Mar. 1 issue of the *Proceedings of the National Academy of Sciences*.

"These results will help scientists to pull back the curtains that have obscured understanding of sleep," said Dr. Judith Vaitukaitis, director of NCRR, which funds the MIT Clinical Research Center. "They also boost future hope of a natural, nonaddictive agent that could improve sleep for millions of Americans."

Despite the promising results, consumers should not use melatonin that is sold in some health food stores, because the supplements may contain impurities and offer doses of the hormone that are "much too high," Wurtman cautions. "I am hopeful that a safe, regulated supply of the hormone may be available in the future." Extensive studies of the hormone would be needed before this would be possible.

In the placebo-controlled study, scientists gave 20 volunteers either a placebo or one of several very small doses of melatonin and asked them to close their eyes while holding a switch in a darkened room. They then measured how long it took for the volunteers to release the switch, an indication of their departure into sleep. All of the various doses of melatonin significantly speeded the onset of sleep and increased time spent asleep when compared with placebo. In addition, volunteers also reported increased sleepiness and fatigue after receiving melatonin.

"All of us have wondered what makes you fall asleep and what determines when you fall asleep," said Wurtman. "These findings suggest that one answer may be melatonin."

—Frances Taylor

Mouse Gene Linked to Defective Cartilage Development, Cleft Palate

Scientists have identified the genetic defect that produces a lethal condition in mice known as cartilage matrix deficiency. Culminating a search that began well over a decade ago, this finding opens an avenue to investigate the cause and treatment of human cartilage disorders.

The study was conducted by a research team led by investigators from NIDR. The results were released in the June issue of *Nature Genetics*.

Cartilage matrix deficiency, or "cmd," refers to the molecular framework, or matrix, that normally gives cartilage its shape and shock-absorbing resiliency. The cmd mice are born with poorly formed cartilage, are dwarfed in appearance, have cleft palate, and die just after birth. The implicated gene produces a large protein called aggrecan, one of the major components of cartilage.

Although aggrecan is crucial to the structure of both mouse and human cartilage, mutations in the gene have not yet been linked to human disorders. However, the symptoms in cmd mice are similar to certain genetic conditions in which affected infants have severe developmental abnormalities and reduced levels of cartilage throughout the body.

"In the cmd mice, aggrecan may play a regulatory role in cartilage formation and the development of the palate," said Dr. Hideto Watanabe, of the NIDR Laboratory of Developmental Biology (LDB) and lead author on the paper. "We have evidence from tissue culture studies that the addition of aggrecan protein can reverse the abnormal matrix produced by cmd cartilage-forming cells. We would anticipate that the

abnormalities observed in cmd mice could be prevented by introducing the normal aggrecan gene."

Cmd mice inherit a defective gene from each parent, and die shortly after birth. However, littermates that inherit one normal gene and one defective gene appear healthy but have about half the normal aggrecan content in their cartilage. These animals, termed "heterozygous" because they carry two versions of the gene, may also provide important insights into human disease, according to Dr. Yoshihiko Yamada, chief of LDB's molecular biology section and study director.

The investigators frequently see abnormalities in spine alignment and lower limb movement in older heterozygous animals. These mice have symptoms that resemble spinal paralysis and osteoarthritis in humans. According to Yamada, the physical degeneration could be due to cartilage in the vertebra and joints wearing out prematurely. "There may be a connection between a defective aggrecan gene and the development of ruptured vertebral discs and osteoarthritis in these mice, as well as in certain aging human populations," he said. "The cmd heterozygous mice could prove to be a useful model for testing therapeutic strategies."

—Wayne Little

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New Vaccine Strategy Promising Against Schistosomiasis

A recently discovered immune system protein given in a vaccine might help prevent the organ damage caused by schistosomiasis, a worm infection prevalent in the developing world, according to a research report from NIAID.

Among parasitic diseases, only malaria causes more disability and deaths than schistosomiasis. Schistosomiasis afflicts more than 200 million people worldwide who swim or wade in infested waters. The disease occurs in 74 tropical and subtropical countries, and causes some 800,000 deaths each year.

Free-swimming larvae of the parasite penetrate the skin, migrate toward the liver and mature into adult worms. The serious symptoms of schistosomiasis occur when female worms deposit eggs in a person's tissues. Immune system cells wall off the eggs into cysts known as granulomas, clogging capillaries, blocking blood flow and often resulting in scar tissue (fibrosis) in organs. Complications of long-term infection may include liver cirrhosis, bladder tumors, kidney failure and death.

In experiments reported in the May 1 *Journal of Experimental Medicine*, NIAID investigators demonstrated that IL-12, a signalling molecule secreted by certain immune system cells, repressed granuloma formation in mice previously injected with eggs from *Schistosoma mansoni*. *S. mansoni* is one of three major species of worms carried by fresh-water snails that cause schistosomiasis in man, and it causes a similar disease in mice.

"In egg-injected mice, we found that IL-12 significantly reduced the size of

granulomas," says lead author Dr. Thomas A. Wynn, of the immunology and cell biology section in NIAID's Laboratory of Parasitic Diseases. "Smaller granulomas might mean less fibrosis and, consequently, less serious disease in people with schistosomiasis."

These results suggest that an IL-12 vaccine might also prevent the formation of schistosomal granulomas. To test this hypothesis, Wynn and his colleagues injected mice with a combination of eggs and IL-12, and 4 to 12 weeks later reinjected eggs alone.

"In the inoculated animals, only small granulomas formed after the second exposure to eggs, and these accumulations of cells were almost completely gone after 14 days," says Wynn. "Our data suggest that it one day may be possible to use certain egg molecules plus interleukin-12 in a vaccine to prevent granulomatous disease in people with schistosomiasis. This approach might help prevent disease in individuals constantly reinfected with schistosomes."

The NIAID researchers are now determining whether the combined egg/IL-12 vaccination can provide lasting protection for mice against fibrosis and other problems associated with granuloma formation. The scientists also are examining whether the approach can protect mice naturally infected with *S. mansoni*, because granuloma formation from natural infections may be different than that following egg injection.

The NIAID report adds to a growing understanding of how IL-12 and other molecules regulate the immune response to parasitic infections. The investigators found that IL-12 probably prevents granuloma formation by triggering the production of a second immune system protein, interferon-

gamma.

"Interferon-gamma is central to cell-mediated immunity, in which cells such as macrophages kill invading organisms directly," explains Dr. Alan Sher, chief of the immunology and cell biology section. "Our studies suggest that interferon-gamma also down-regulates granuloma formation. Through its effects on the production of interferon-gamma, IL-12 has enormous potential as a therapy or vaccine component to manipulate the immune response."

Once in the body, schistosomal worms can live in the veins of the bladder and intestines for 5 to 30 years, and each female can produce 300 to 3,500 eggs a day. Although the three species of schistosomes that cause serious disease are not native to the continental United States, schistosomiasis is often seen in people from countries where the disease is endemic who now live in the U.S., and in travelers who increasingly contract the disease as "adventure" tourism increases. For those who are infected, safe, effective and low-cost oral drugs are available to treat schistosomiasis: praziquantel and metrifonate can be used against all three species, and oxamniquine is effective against *S. mansoni*. However, "There is now evidence that the parasite can develop resistance to these drugs," says Sher. "Therefore, new approaches for preventing and treating schistosomiasis are needed."

Coauthors of Wynn and Sher include Drs. Isam Eltoun, Isabelle P. Oswald and Allen W. Cheever, all of the Laboratory of Parasitic Diseases.

—Greg Folkers

This material was compiled from institute information office articles.

NIH Notes — March 1994 to July 1994

AWARDS AND HONORS

Dr. Sankar Adhya, chief of the developmental genetics section in NCI's Laboratory of Molecular Biology, was recently elected to the National Academy of Sciences ... **Dr. Gerald Chader**, a researcher at NEI for 23 years and chief of NEI's Laboratory of Retinal Cell and Molecular Biology since 1985, recently received his second award from the Alcon Research Institute for his outstanding contributions to vision research, specifically for his work on a new protein, pigment epithelium-derived factor, which acts as a neurotrophic and neuron survival factor in specific retinal and brain cells. He was also recently awarded an honorary doctorate from the University of Lund in Sweden ... **Dr. Ronald Elin**, chief of the Clinical Center's clinical pathology department, received the Award for Outstanding Contributions to Clinical Chemistry in a Selected Area of Research. The award is given annually by the American Association for Clinical Chemistry to a clinical chemist who achieves "national and international status for pioneering efforts in an area of research considered fundamental to the science and is considered among the world's foremost experts in that specific discipline" ... **Dr. Ronald Dubner**, chief of the NIDR Neurobiology and Anesthesiology Branch, was honored when the 1994 scientific meeting of the American Academy of Orofacial Pain was dedicated to him in honor of his "individual excellence and achievement in pain research" ... **Dr. Joseph F. Fraumeni, Jr.**, NCI associate director for epidemiology and biostatistics, has won the 1993 American College of Epidemiology's Abraham Lilienfeld Award. Named for the founder of the American College of Epidemiology, the Lilienfeld Award was given to Fraumeni for his contribution to the field of epidemiology in terms of research, practice, or both ... **Dr. Daniel L. Gilbert**, head of the unit on reactive oxygen species in the biophysics section of the Clinical Neuroscience Branch, NINDS, was recently honored by being chosen as the Rebecca Gerschman Lecturer at the Oxygen Radicals in Biochemistry and Medicine International Symposium in Buenos Aires. His research on oxygen-free

radicals in living cells began in the early 1950's with Gerschman ... **Dr. F. Terry Hambrecht**, director of the NINDS Neural Prosthesis Program, recently received the Goldenson-Goldenson Technology Award from the United Cerebral Palsy Research and Education Foundation. Hambrecht, who is both a research physician and an electrical engineer, was honored for his scientific leadership in the restoration of function to the injured nervous system ... **Dr. Leland Hartwell**, a longtime NIGMS grantee and a member of the National Advisory General Medical Sciences Council, recently received a 1994 Commonwealth Award, sponsored by the Bank of Delaware. Hartwell, a professor of genetics at the University of Washington in Seattle, was honored for his work in yeast genetics and cell division ... **Dr. Elise C. Kohn** of NCI has received from the 1994 Arthur S. Flemming Award from Downtown Jaycees of Washington D.C. She was honored for her "pioneering studies of cancer cell invasion leading to the first human clinical trials of signal transduction therapy" ... **Dr. Kyoshi Mizuuchi**, visiting scientist and chief of the section on genetic mechanisms in the Laboratory of Molecular Biology, NIDDK, was recently elected to the National Academy of Sciences ... **Dr. Matilda White Riley**, senior social scientist at NIA, was recently elected to the National Academy of Sciences. She also received an honorary degree recently from Radcliffe College during ceremonies marking the 100th anniversary of the college's charter ... **Dr. Michael Rogawski**, chief of the NINDS neural excitability section, received the 1993 Epilepsy Award for Outstanding Contributions to the Pharmacology of Antiepileptic Drugs at the recent annual meetings of the Federation of American Societies for Experimental Biology, in Anaheim. Rogawski was honored for his outstanding contributions and achievements in epilepsy research and the potential they hold for development of new therapies for human epilepsy ... **Dr. Lawrence Shulman**, NIAMS director, recently received a Presidential Citation from the American Academy of Dermatology in "grateful appreciation and recognition of {Shulman's} leadership as the first director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases." Shulman was also recently presented an award by the National Alopecia Areata Foundation "in recognition of his vision and

leadership" for initiating a national research workshop on alopecia areata ... **Dr. Chris H.M. Takimoto** of the NCI-Navy Oncology Branch was awarded the Clinical Research Career Development Award by the American Society of Clinical Oncology recently in Dallas ... **Dr. Henry DeF. Webster**, chief of the NINDS Laboratory of Experimental Neuropathology, recently received the Peripheral Neuropathology Association Scientific Award. He was honored for his pioneering work in peripheral nerve ultrastructure and development.

APPOINTMENTS AND PERSONNEL CHANGES

Dr. Ronald P. Abeles, a longtime NIA scientist and administrator, has been named associate director for behavioral and social research at NIA ... **Dr. Wendy Baldwin** has been appointed NIH deputy director for extramural research. She has been acting deputy director since last June. She leaves her position as deputy director of NICHD, a position she has held since 1991. Before that she was chief of NICHD's Demographic and Behavioral Sciences Branch, Center for Population Research, from 1979 to 1991. Prior to that, she was a health scientist administrator at NICHD, 1973-1979 ... **Dr. Jean Chin** recently joined the staff of NIGMS as a program administrator in the Cellular and Molecular Basis of Disease Program Branch. She is responsible for administering grants in lipid metabolism, membrane biochemistry and biophysics, and transport. She comes to NIGMS from the Cell Biology and Metabolism Branch, NICHD, where she has served a senior staff fellow since 1991 ... **Dr. George W. Counts** has been named director of the Office of Research on Minority and Women's Health within the Office of the Director, NIAID. An authority on infectious diseases, Counts has been at NIH since 1989, serving as chief of the Clinical Research Management Branch in the Division of AIDS, NIAID ... **Dr. Rex W. Cowdry** has been chosen acting director of the National Institute of Mental Health. His appointment was made after the resignation of Dr. Frederick K. Goodwin in April. Cowdry previously served as deputy director for research at St. Elizabeths Hospital and head of the NIMH Neuropsychiatric Research Hospital, Division of Intramural Research. He also was acting deputy director of NIMH from

1986 to 1988 and from February to April 1995. He is noted for his clinical research advances in mood and personality disorders, particularly rapid cycling bipolar disorder and borderline personality disorder ... **Dr. John I. Gallin**, director, Division of Intramural Research, NIAID, since 1985, and also chief of the institute's Laboratory of Host Defenses since 1991, has been named director of the Warren Grant Magnuson Clinical Center and NIH associate director for clinical research; he assumed both posts on May 1 ... **MaryAnn Guerra** has been named executive officer at NHLBI. She comes to NHLBI after a long federal career, including nearly a decade at NIAID, where she served most recently as chief of both the Technology Transfer Branch in the Office of the Director and the Administrative Management Branch in the Division of Intramural Research. Her work at NIH has included development of automated systems for acquisitions, budget, and personnel demands, and managing cooperative research and development agreements and other technology transfer-related efforts ... **Dr. Ada Sue Hinshaw**, who became the first permanent director of the National Institute of Nursing Research, has left that post to become dean of the nursing school at University of Michigan ... **Dr. Marvin Kalt** has been appointed director of NCI's Division of Extramural Activities. He had been deputy director of the division and acting director since Barbara Bynum retired earlier this year. Dr. Robert Browning has been named acting deputy director ... **Dr. John Y. Killen, Jr.**, has been selected as director of the Division of AIDS, NIAID. He had been acting director of DAIDS since June 1993, following the resignation of Dr. Daniel F. Hoth ... **Dr. William G. Kohn** has been named chief, patient care and clinical studies section and deputy clinical director at NIDR. He succeeds Dr. Albert Guckes, who retired recently. A diplomate of the American Board of Oral Medicine, Kohn has served in a wide range of clinical and administrative capacities both for NIDR and other public health organizations ... **William T. Magers, Jr.**, NIH fire chief for the past 5 years and an expert in emergency management, has been selected as the NIH emergency planning coordinator within the Emergency Management Branch, Division of Safety ... **Dr. Clifton A. Poodry** recently became the first director of the Minority Opportunities in Research (MORE) Program Branch, NIGMS. The MORE

branch is the focal point for the institute's efforts to increase the number of minority individuals engaged in biomedical research. He comes to NIH from the University of California, Santa Cruz, where he has worked since 1972, with the exception of 2 years (1982-1984) when he served as director of the developmental biology program at the National Science Foundation. He has had a long association with NIH ... **Dr. Jerry Rice**, chief of the Laboratory of Comparative Carcinogenesis, Division of Cancer Etiology, NCI, has been appointed director of the Frederick Cancer Research & Development Center. He first joined NCI in 1966. His research interests are in mechanisms of carcinogenesis, especially perinatal carcinogenesis ... **Dr. Zeda Rosenberg** has been named assistant director for prevention research, NIAID. She will coordinate research programs that focus on prevention and serve as a liaison between the NIAID Office of the Director and other ICDs, the NIH director's office and other

PHS agencies. She has served as assistant to the NIAID director. She has been and will continue to be coordinator of NIAID's activities in tuberculosis research and other efforts relevant to the institute's prevention research agenda ... **Dr. Mario Szol** recently became head of the biologics evaluation section of the Cancer Therapy Evaluation Program in NCI's Division of Cancer Treatment ... **Anne Thomas**, acting associate director for communications within the Office of the Director since February 1992, has been named associate director for communications, OD ... **Dr. Barbara A. Underwood**, who has worked at NEI since 1982 as the director's special assistant for nutrition research and international programs and, since 1989, as assistant director for international program activities, has accepted a senior scientist position in the nutrition unit of the food and nutrition division of the World Health Organization in Geneva, Switzerland.

(Continued on p. 26)



The Institute for Scientific Information reports that a paper by researchers in NIAID's Laboratory of Immunoregulation was the second most cited scientific paper of 1993. Shown are authors of the paper, "HIV Infection is Active and Progressive in Lymphoid Tissue during the Clinically Latent Stage of Disease," (from l) Drs. Anthony S. Fauci, Giuseppe Pantaleo, Cecilia Graziosi and Luca Butini, and biologist Jim Demarest. The paper, which appeared in the Mar. 25, 1993, *Nature*, demonstrated that "significant viral activity occurs within lymphoid tissue even during the symptomless stage of HIV infection when patients feel well and damage to the immune system is not yet severe," says Fauci. "This information has important implications for the design of therapeutic strategies, suggesting a role for drugs that might be used early in the course of infection." Other authors not pictured are Drs. Cecil H. Fox, Jan M. Orenstein and Donald P. Kotler.

(Continued from p. 25)

RETIREMENTS

Rowena Ahern, information and exhibits assistant in the NINDS Office of Scientific and Health Reports, has retired after 41 years of government service. Although she has retired, she will be back on NIH's campus from time to time. Her retirement plans include volunteering at the Fogarty Hospitality Center, helping out in the R&W main office, and travelling to Hawaii and Argentina ... **Arthur A. Campbell** recently retired as deputy director of the Center for Population Research (CPR), NICHD. A demographer, he was deputy director of the CPR since its inception in 1968 ... **Dr. Gene Cohen**, who served as acting director NIA from August 1991 to June 1993 and as deputy director from 1988 to 1983, retired from the Public Health Service recently after completing 20 years of federal service. He is a geriatric psychiatrist and was the first chief of the Centers on Aging at NIMH, the first federally supported center on mental health and aging established in any country. Cohen is returning to an academic appointment as founding director of the newly established Center for Aging, Health, and Humanities at George Washington University ... **Donald F. Cyphers**, financial management officer at NIDDK, retired Jan. 3 after 37 years of federal service, 27 of which were spent with NIDDK. He played a key role in developing and implementing program operation guidelines, while also serving as a senior advisor to four institute directors. Once retired Cyphers will divide his time between a Victorian house in Olde Towne Gaithersburg and a house on Lake Dora in central Florida ... **Dr. Murray Eden** has retired as director of NCRR's Biomedical Engineering and Instrumentation Program, ending half a century of federal service. For the past 18 years, he has overseen operation of NIH's intramural hub for engineering and related sciences. In recognition of his contributions to the advancement of biomedical engineering and instrumentation, Eden received the NIH Director's Award in 1993 ... **Dr. Albert D. Guckes** retired from the Public Health Service Commissioned Corps Apr. 1 after 27 years of service. Since 1989, he had served as the chief, patient care and clinical studies section and deputy clinical director at NIDR. He initiated NIDR's clinical research program on dental implants. He

leaves NIDR to become director of the graduate program in prosthodontics at the University of North Carolina School of Dentistry, fulfilling a longstanding wish to be formally involved in academics ... **Dr. Carl A. Kuether**, program administrator for the biorelated chemical processes grants in the Pharmacology and Biorelated Chemistry Program Branch, retired recently after 32 years of government service, 28 of which he spent at NIGMS. He and his wife have moved to Madison, Conn. to be near his daughter and grandchildren. He plans to spend his time with his family, reading and pursuing a hobby of building furniture out of kits ... **Dr. Harald Loe**, director of the National Institute of Dental Research, retired from the federal government on June 1. The fifth director of NIDR, he served in this position since Jan. 1, 1983. During his tenure, he fostered the growth of oral health science from a narrow concern with teeth and gums to a broader discipline encompassing all the oral and craniofacial tissues, as well as behaviors associated with the cause and prevention of disease and the maintenance of health. Under his directorship, NIDR implemented a variety of means to convey research findings from the laboratory to the profession and to the public. He is known internationally for his contributions to periodontal disease research. He is now university professor at the University of Connecticut Health Center in Farmington ... **Kenneth Reeves**, section chief of the Telecommunications Branch, OARS, has left NIH after 23 years of providing communications expertise, advice, and service to the NIH community. He has joined the Public Health Service as chief of the Telecommunications Branch at its Parklawn Bldg. headquarters. He will miss all of his friends and colleagues at NIH, but looks forward to his new venture with PHS ... **Dr. Saul Rosen**, who has guided the Clinical Center as acting director since 1990, retired in June. He first came to NIH in 1958 for a 2-year stint as a clinical associate in the then National Institute of Arthritis, Metabolism and Digestive Diseases. He returned here to stay in 1961. He served as a senior investigator in the institute's Clinical Endocrinology Branch from 1961-1984, and was named deputy director of the Clinical Center in 1984. His retirement plans include learning to play the piano as a prelude to reading music and taking singing lessons ... **Dr. Novera Herbert Spector** of

the Division of Fundamental Neurosciences, NINDS, retired from NIH on May 31. He had a distinguished career at NIH. He has recently been elected as an honorary foreign member of the Romanian Academy of Medical Sciences. He has been awarded many honors especially for his research on "NIM"—neuroimmunomodulation, a term he coined referring to interactions between the nervous and immune systems. As a health scientist administrator for 18 years at NIH, he initiated programs in support of research in local neuronal actions and NIM, both of which were considered risky and unconventional 15 years ago, but both of which have flourished and become mainstream science today.

DEATHS

Ella Reznick Bach, 82, a retired secretary at NIMH, died of a cerebral hemorrhage July 29, 1993, at Washington Adventist Hospital. She went to work at NIMH in 1955 and retired about 1965 and devoted herself to volunteering ... **Karen Marie Bariga**, 37, an office assistant with NICHD's Office of Administrative Management, died Feb. 16 of breast cancer at her home in Silver Spring. She joined NIH in 1986 and had been with NICHD since 1988 ... **Geraldine Stelling Benson**, 79, who worked at NIH in the Office of Program Planning, OD, starting in the early 1950's until she retired in the mid-1970's, died on May 22 ... **Jon Fredric "Rick" Carow**, 50, employed at NIH for more than 30 years, died of cancer on Mar. 7 at his home in Mount Airy, Md. His career at NIH was in grants management. Starting out as a mail clerk in NHLBI's Grants Operations Branch, Carow rose to become the deputy chief of NIA's grants and contracts management office. Away from NIH, he was an accomplished composer and musician ... **Dr. R. Lee Clark**, 87, retired president of the University of Texas's M.D. Anderson Cancer Center, died of cancer May 23 at M.D. Anderson. He served on the President's Cancer Panel, which supervised implementation of the National Cancer Act, from 1972 to 1977 ... **Elaine H. Connoley**, 77, a retired secretary and research assistant at NIMH, died of cardiopulmonary arrest Apr. 10 at the Home Cove assisted-care facility in Damascus. She worked at NIMH from 1961 until 1976

... **Walter Eddy Daniels**, 99, a retired NIH employee, died of a pulmonary embolism Apr. 3 at Arlington Hospital. He worked for the government special police at NIH starting in 1970 and retired in the mid-1970's ... **Dr. Irving Pierce Delappe**, 78, a retired molecular biologist with NIAID, died May 19 at Manor Care nursing home in Potomac. He had Alzheimer's disease. In 1960, he started to work at NIH and retired in 1989 ... **Dorothy Henderson Fisher**, 84, a retired secretary at NCI, died of cancer Apr. 16 at her home in Bethesda. She began her career with NCI about 1955 and retired about 1978 ... **Gilbert John Frey**, 76, an administrative officer of the Division of Research Grants, NIH, died June 1 at his home ... **Constantine J. Gillespie**, 65, a retired NIH medical information specialist, died of a heart attack Mar. 4 on his boat in New Smyrna Beach, Fla. He retired from NIH in 1978 after 30 years of federal service ... **Dr. John F. Goggins** died on May 24. He had been at NIDR from 1964 to 1984. At the time of his death, he was director of research centers at Marquette University graduate school in Milwaukee, Wisconsin ... **Harriet W. Hobdey**, 78, a secretary who worked at NIH from 1971 until 1981, died of kidney failure June 24 at Suburban Hospital ... **Dr. Evan C. Horning** died May 14, 1993 in Texas. He was chief, Laboratory of Chemistry of Natural Products, National Heart Institute, from 1950 to 1961, specializing in lipid research. He was professor emeritus at Baylor College of Medicine ... **Capt. Nathan N. Jackson**, a veterinarian who served NCCR's Veterinary Resources Program for 15 years and an officer of the Public Health Service, died on Apr. 25 after a long battle with cancer. He served three branches of the U.S. armed services during his 28-year career and, within the Veterinary Resources Program, he also played many key roles, including chief of the genetic resources section and most recently, assistant to the director ... **Patricia Simpson Jordan**, 69, a retired grants financial analyst at NIGMS, died of cancer Apr. 18 at Suburban Hospital. She joined the staff at NIH in 1968 and retired in 1988 ... **Dr. Edward Katz**, 71, a retired professor of microbiology and immunology at Georgetown University Medical Center, died of cancer Apr. 11 at Georgetown University Hospital. From 1960 to 1962, Katz was a fellow in the Laboratory of

Clinical Biochemistry ... **Dr. William A. Krivoy**, a renowned electrophysiologist and neurobiologist at Baylor University, died Oct. 24, 1993 in Richardson, Texas. He worked at NIDA's Addiction Research Center in Lexington until 1983, when he suffered a massive stroke. Since then, he convalesced in Texas. Krivoy was among the first to recognize the importance of neuropeptides as modulators and transmitters in the central nervous system ... **Howard Leviton**, 85, a government writer and editor at NIH, died Apr. 15 at his home in Rockville after a heart attack. He joined NIH about 1969 and retired in 1977 ... **Clarence A. Lowe**, 85, died on Feb. 13, 1993. He was a resident of Delray Beach, Fla. In 1967, following service in the military, Lowe joined NIH where he worked in the Division of Research Services. He left NIH to become assistant director of policy and procedures, Division of Grants and Contracts in the Health Service and Mental Health Association, U.S. Public Health Service. He also was assistant dean of the Harvard School of Dental Medicine and assistant dean of George Washington University ... **Dr. Walle J.H. Nauta**, 77, a founder of neuroscience and a leading authority on the brain, died of a blood infection on Mar. 24 in Cambridge, Mass. He was a professor emeritus of neuroanatomy at MIT, was a neurophysiologist at Walter Reed from 1951 to 1964, and taught at the University of Maryland from 1955 to 1964. He had served on the research career development awards committee of NIMH ... **Dr. Walter Lloyd Newton**, 77, died of renal failure Apr. 17 at Walter Reed Army Medical Center. He was a PHS captain who retired in 1975 as deputy associate director for program activities at NIGMS. He began his PHS career during World War II when he did research on malaria in Puerto Rico. He specialized in tropical and infectious diseases, especially on causes and treatment of infectious parasitic diseases. In retirement, he had been a consultant to NIH and the Food and Drug Administration ... **Margaret Virginia Roark**, 47, a retired program analyst at NHLBI, died of cancer at her home on June 5. In 1965, she began her NIH career as a clerical worker, spent the second half of her career as a program analyst and retired in 1993 ... **Dr. John Romano**, 85, a psychiatrist who taught generations of aspiring physicians, died of a

stroke on June 19 at Strong Memorial Hospital in Rochester, N.Y. He was a founding member of NIMH. As a teacher and a physician, he emphasized the importance of creating a dialogue between patient and physician ... **Beatrice Rosen**, 68, retired chief of biometry at NIMH, died Mar. 14 at the Clinical Center of polyarteritis nodosa, a disease of the arteries. In 1958, after raising her children, she came to work at NIMH. Her work involved directing and writing studies, research papers and surveys on mental health. She retired in 1981 ... **Dr. James Augustine Shannon**, 89, a medical investigator and educator who was NIH director from 1955 to 1968, died of a ruptured aortic aneurysm on May 20 at the Church Home, a retirement facility in Baltimore (see p. 1 for an essay about him) ... **Dr. Roger W. Sperry**, 80, an experimental neurobiologist who was a cowinner of the 1981 Nobel Prize for Physiology or Medicine, died after a heart attack on Apr. 17 in Pasadena, Calif. He was a professor of psychobiology at Caltech for 30 years before retiring in 1984. He was cited by the Nobel committee for "his discoveries of the specialization of both cerebral hemispheres" and the development of an "entirely new dimension in our comprehension of the higher functions of the brain." He worked briefly at NIH in the 1950's as section chief dealing with neurological diseases and blindness ... **Lawrence Chesterfield Sullivan**, 67, of Kensington and Manassas Park, Va., died May 16 at Holy Cross Hospital. He worked at NIH as an electrician from 1946 until he retired in 1966 ... **Dr. Virginia Louise Zaratzian**, 75, a retired pharmacologist who worked at NIMH in the mid-1950's, died of cardiac arrest May 17 at a hospital in Del Ray Beach, Fla.

The NIH Alumni Association recently received a contribution in memory of Dr. James A. Shannon donated by Mr. Charles Miller.

NIHAA UPDATE

The NIH Recreation and Welfare Association proudly presents

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BALLOT**NATIONAL INSTITUTES OF HEALTH ALUMNI ASSOCIATION****PLEASE TEAR OUT AND RETURN WITH YOUR VOTE**

In accordance with the bylaws of the NIHAA, alumni members of the association are to elect one-third of the board of the association. The nominating committee, appointed by President Thomas J. Kennedy, Jr., has nominated the alumni members listed below, each of whom has agreed to serve on the board of directors if elected, to occupy positions on the board left open by expiring terms of office of present members. Each alumnus(a) member may vote for three of the nominees. Please note that associate members (current NIH employees) are not eligible to vote in this election.

NOMINEES FOR BOARD OF DIRECTORS

Please vote for up to three (3) and return your ballot to the NIHAA office by Sept. 15.

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- ☐ Dr. William Gay — Scientist, DRR
- ☐ Ms. Jane Leitch — Executive Office, NCRR
- ☐ Ms. Marjorie Melton — Parasitologist, NIAID
- ☐ Dr. Bayard Morrison — OD, NCI Planning Office
- ☐ Dr. David Scott — Director, NIDR
- ☐ Dr. Eugene Weinbach — Research Chemist, NIAID
- ☐ Dr. Bernhard Witkop — Institute Scholar, NIDDK

**NIHAA Office
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Bethesda, MD 20814**

NIH Retrospectives



Summer 1954

Tremendous expansion and excellent progress have marked the first year's operation of the Clinical Center. From opening day July 6, 1953, to the close of business July 5, 1954, the Clinical Center has grown so rapidly that it now employs more people than any of the institutes. Construction work is virtually completed. The number of inpatients progressed from 17 on opening day to a total of 866. The average stay is 30 days. Over 100 clinical studies have been initiated ... Sept. 27, 1954, has been set as the opening date of the new graduate school program at NIH. Courses have been organized by the graduate school of the U.S. Department of Agriculture and will be administered by the NIH Office of Clinical and Professional Education.



Summer 1964

Scientists from NIH have implicated a small South American mammal in the transmission of a serious viral illness which has claimed more than 100 lives in Northeastern Bolivia. The disease is known as Bolivian hemorrhagic fever ... Dr. Wilton R. Earle, 61, a recognized world authority on the development of large-scale, long-term tissue culture

methods, died May 30. He had been on the NCI staff since the institute was formed in 1937. Since 1952, he was head of the Tissue Culture Section, Laboratory of Biology, NCI ... On Aug. 17, 1964, the new Capital Beltway section between Wisconsin and Georgia Avenues is scheduled to open for traffic.



Summer 1974

On May 31, 1974, the President signed into law a measure establishing the National Institute on Aging within NIH. The institute will conduct and support "biomedical, social, and behavioral research and training relating to the aging process, the diseases and other special problems of the aged."



The above photo was sent to NIHA Update by Louise R. Miller. The picture was taken in June 1958 of the "crew" that she worked with in the department of intermediary metabolism of the National Institute of Arthritis and Metabolic Diseases. In the front row are (from l to r) Dr. Shlomo Hestrin (Israel), Dr. Yoh Imai (Japan), Dr. Irwin Leder, Ethel Newson, Dr. DeWitt Stetten, Jr., Louise Miller, Coleman Seward and Dr. Glenn Mortimore. In the back row are (from l to r) Dr. Ben Bloom, Dr. Yale Topper, Dr. Marshall Nirenberg, Dr. John (Jack) Bryant, Howard Katzen, Dr. Frank Eisenberg, Jr., Dr. Frank Tietze, Bill Comstock and Dr. Leroy Pesch.

The NIH Record

U.S. Department
of Health,
Education, and
Welfare

September 18,
1979
Vol. XXXI
No. 18

NATIONAL
INSTITUTES
OF
HEALTH

Summer 1984

Dr. G. Gilbert Ashwell, former chief of the Laboratory of Biochemistry and Metabolism, National Institute of Arthritis Diabetes, and Digestive and Kidney Diseases, has been promoted to the ranks of Institute Scholar. He is the first NIH scientist to be honored with this new rank ... Some 125 years of working talent and skill retired on June 29 in the persons of four staff members of the Pathology Technological Section of NCI's Laboratory of Pathology, which section, after 47 years of existence will close. Retiring were: section chief Barbara Coolidge, 30 years; Clara Mauck, 35 years; Ruby Thompson, 32 years and Lindell Dove, 28 years.



If You Are Not Yet A Member of the NIHAA [Clip and mail]

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I would like to apply for membership in the NIH Alumni Association. My NIH position:

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from _____ to _____ (Years)	My membership dues of \$ _____

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You have received a dues renewal notice from NIHAA. Please return it promptly. Dues are an important source of our income and we need your continued support.

Memberships

Please indicate membership desired:

Type	Annual Dues
Alumni (for past NIH employees only)	\$35.00
Associate (for current NIH employees)	\$35.00
Friends (for individuals or institutions interested in NIHAA's goals)	\$35.00 to \$10,000.00
Life	\$250.00

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Please indicate amount here

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NIH Alumni are people who have worked or studied at NIH. Present NIH staff are invited to join as associate members.

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Renew Now

1995 Annual Meeting To Attract Diverse Crowd

At its Jan. 24, 1995, meeting the NIHAA board of directors approved plans for the 1995 annual meeting as proposed by the annual meeting program committee. Cochaired by Drs. James Duff and Thomas Malone, the committee worked hard to restructure the annual meeting to reflect the broad membership of NIHAA and to attract participants from around the country and abroad.

In the past those attending the annual meeting have come primarily from the Washington metropolitan area. The committee hopes that the 1995 meeting will signal the reversal of this trend. It will be held on Saturday, June 10, in the Mary Woodard Lasker Center (the Cloister), Bldg. 60, on the grounds of the NIH campus.

Dr. Robert Butler, first director of the National Institute on Aging and presently chair of the department of geriatrics and adult development at the Mount Sinai School of Medicine in New York,

(See *Annual Meeting* p. 2)



Dr. Robert Butler, former director of NIA, will speak at NIHAA's annual meeting on June 10, 1995.

NIH's Rodbell, Grantee Gilman Share Nobel Medicine Prize; Grantee Olah Wins Chemistry

A scientist in the NIH intramural program and an NIH grantee are the recipients of the 1994 Nobel Prize in physiology or medicine. Their work focuses on G proteins, key components of the communication system that regulates cellular activity. Another long-time grantee won the 1994 Nobel Prize in chemistry.

The NIH scientist, Dr. Martin Rodbell, recently attained scientist emeritus status in the Laboratory of Cellular and Molecular Pharmacology, NIEHS. The NIH grantees are Dr. Alfred G. Gilman, professor and chairman, department of pharmacology, University of Texas Southwestern Medical Center at Dallas, who shared the medicine prize with Rodbell, and

(See *Nobelists* p. 14)



Dr. Martin Rodbell

No Longer 'Acting'

Gottesman Named Intramural Deputy Director

By Rich McManus

He never acted like he was acting, and now he isn't "acting" any more: Dr. Michael Gottesman last Oct. 30 officially became NIH deputy director for intramural research, a post that surveys and guides the agency's multifaceted \$1.1 billion-per-year intramural research effort.

A well-known and respected basic cancer researcher who has focused on multidrug resistance in human cells, Gottesman has heightened his campus profile in recent years by accepting a succession of "acting" posts that he has handled with aplomb. After Dr. James Watson left as first director of the National Center for Human Genome Research, then NIH director Dr. Bernadine Healy tapped Gottesman to run the center while a successor to the famed Watson was sought. Gottesman was deeply involved in the successful

recruitment of Dr. Francis Collins to NIH in April 1993. Seven months later, new NIH director Dr. Harold Varmus picked Gottesman to succeed

(See *Gottesman* p. 16)

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Annual Meeting (continued from p. 1)
will speak on the health prospects for an aging population. Butler won the Pulitzer prize for *Why Survive? Being Old in America* (1976). His most recent book, *Love and Sex After 60* (1993) has had enthusiastic reviews.

In great demand worldwide, Butler's comments will be of interest to every alumnus. His early research helped establish the fact that senility was not inevitable with aging, but is instead a consequence of disease.

Following a short business meeting presided over by outgoing NIHAA president Dr. Thomas J. Kennedy, Jr., there will be events designed to renew old friendships, meet other alumni, and just have a good time. The first will be a picnic with an international flavor on

the grounds of the old Convent, now the Mary Woodard Lasker Center. There will be good food, good music, good fellowship, and maybe a Judo demonstration by Tom Malone and members of the NIH Judo Club. Invitations will be sent to all members in the spring with details.

While the formal part of the 1995 annual meeting will take place on one day, the planning committee hopes that the meeting will encompass two days in the future, particularly in view of increased attendance from alumni outside the Washington area. Your ideas for future meetings would be greatly appreciated. Please send them, as well as any other comments you have about the NIHAA, to Mrs. Harriet Greenwald, NIHAA executive director.

SAVE THE DATE!

The Annual Meeting of the NIH Alumni Association

Saturday, June 10, 1995

*at the Mary Woodard Lasker Center (the Cloister)
Bldg. 60, NIH, Bethesda, Md.*

Dr. Robert Butler will speak on

Health Prospects for an Aging Population

*Watch for the invitation with full details in May.
If you have any questions or would like more information,
please call NIHAA at (301) 530-0567*

Thank you and see you in June.

Thank you to our friends

The NIHAA warmly welcomes the following organizations that joined in the category of "Friends" and wishes to acknowledge its appreciation for their generous support:

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We also would like to thank Glaxo Inc., Sandoz Research Institute, the Upjohn Company and Wyeth-Ayerst for bearing the considerable expense of underwriting NIHAA Update.

The Foundation for Advanced Education in the Sciences (FAES) has generously and continually supported NIHAA.

We would also like to express our deep appreciation to the following contributors to NIHAA-sponsored events:

*Charles River Laboratories
National Foundation for Infectious Diseases
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Pharmaceutical Research.*

We would also like to thank our members who have contributed donations beyond their dues payment.

Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814, (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or comments on and suggestions for the NIHAA Update, please drop a note to the editor. We reserve the right to edit materials.

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President's Letter

A Call to Arms...

By Dr. Thomas J. Kennedy, Jr.

The alumni of NIH may not be aware that, for the last 24 months, what I believe could become a tragedy of major significance to science and to the health hopes and prospects of the American people has been unfolding, quietly and largely unnoticed except in Bethesda. The "direct operations" of NIH—intramural research and the federal management of extramural research—are under severe and, unless modulated, perhaps ultimately ruinous retrenchment orders. Here's the story.

Downsizing Government

Shortly after his inauguration, President Clinton announced that he intended to reform federal government operations and that Vice President Gore had been named to lead a "National Performance Review" effort to "Reinvent Government." Pursuant to this proposal, three Executive Orders (E.O.s 12837 - 12839), having the force of law, were issued on Feb. 10, 1993.

- The first requires each federal agency to identify the level of "administrative expenses" in the FY 1993 appropriation; and thereafter, in its next four budget submissions, to, seriatim, reduce these expenses, adjusted for inflation, to the levels of 3 percent, 6 percent, 9 percent, and 14 percent below the FY 1993 level.

- The second mandates termination of one-third of all existing federal advisory committees and sharply constrains the chartering of new advisory committees.

- The third orders agencies to eliminate 4 percent of their full time equivalent (FTE) positions (for an aggregate



Dr. Thomas Kennedy, Jr.

reduction of 100,000), with 25 percent of the target being reached by the end of FY 1993 (Sept. 30, 1993), 62.5 percent by the end of FY 1994, and 100 percent by the end of FY 1995. In making these reductions in workforce, 10 percent of the positions eliminated must be in the highest grades (GS 14 or above in the Civil Service system and the equivalent in other personnel systems).

Subsequent directives from the OMB made clear that all NIH "direct operations" were to be categorized as "administrative expenses" and that the 14 percent reduction in these expenses must be in addition to the savings accruing from the elimination of FTE positions in the workforce. Thus, the jargon of "reinvention" transformed every penny spent on scientists working at the laboratory bench or at the bedside of research patients or on administrators of extramural grants and contracts into "administrative expenses!"

In September 1993, the President accepted the recommendations of Vice President Gore's National Performance Review, under which the required reduction in the federal workforce was raised from 4 percent to 12 percent (or from 100,000 to 252,000 FTE positions); and ordered the agencies to each

(See *Call to Arms* p. 4)

Call to Arms (continued from p. 3)

submit an implementing "streamlining plan" to the OMB within less than 90 days. These plans were: to address how the agency proposed, within 5 years, to *halve* the current ratio of managers and supervisors to other personnel; to be "characterized by delegation of authority, decentralization, empowerment of employees to make decisions, and mechanisms to hold managers and employees accountable for their performance;" to propose ways to reduce "red tape"-generating and efficiency-hampering overcontrol and micromanagement, and to simplify the internal organization and administrative processes of the agency; and to seek to realize cost savings, improve the quality of government services, and raise morale and productivity.

Personnel ceilings established by the Presidential Executive Orders and their implementing directives from the OMB were subsequently enacted into law by the Congress in the Federal Workforce Restructuring Act of 1994 (P.L. 103-226) with a further increase in the mandated reduction in the number of FTE positions to 272,000; the savings attendant to these personnel reductions were dedicated, in the 1994 Violent Crime Control and Law Enforcement Act (P.L. 103-322), to the expansion of police forces, to the enlargement of the nation's prison capacity and to the financing of social programs directed at the prevention of crime.

Additional requirements to reduce the size of the federal workforce and of the Senior Executive Service, issuing from either the administration or the 104th Congress, are likely fall-outs from forces set in motion by the elections of November 1994.

Downsizing NIH

Information on the impact that this national policy is having on NIH is not

easy to secure and informants are both hard to find and cautious about discussing these matters. But here are what I choose to think are some of the "facts."

- In the proration of the workforce reductions, NIH took a disproportionately heavy "hit." While the DHHS share of the reduction in FTE positions was 11 percent—the overall government average requirement was 12 percent—the Public Health Service (PHS) imposed, for reasons unknown, a 15 percent downsizing on NIH.

Additional cutbacks may be necessitated, unless some resolution acceptable to the administration of a complex and politically sensitive personnel ceiling problem in the Indian Health Service can be negotiated.

- NIH has been working valiantly to comply with the mandates imposed upon it. One notably vigorous effort has been spearheaded by the "NIH Resource Allocation Group" (RAG) and its Working Group, that transmitted a lengthy set of recommendations to the NIH director on May 23, 1994. But despite the energy and ingenuity manifest in NIH's planning to meet White House goals, reaching the prescribed personnel ceiling targets (a 15 percent reduction by the end of FY 1999) will still require surgery that I believe can only be called draconian.

- That NIH has so far managed to more than meet its FTE reduction target ceilings is largely accounted for by a hiring freeze on FTE appointments, in force since December 1993; the price: serious discrepancies between personnel needs and availability, especially with respect to specialized skills.

- Since about the same time, promotion of employees from the level of GS 13 (or equivalent) to GS 14 has been virtually impossible. The queue of productive scientists waiting for hard-earned and increasingly overdue promotions is steadily lengthening; and

even when vacancies at the upper levels open, only a trickle of promotions will be possible. Less obvious but probably just as significant, in the many instances in which promotion is coupled to the award of tenure, delay and uncertainty about the latter matter enhances frustration and depresses morale.

- From the point of view of intramural scientists, the specter of five more years of steady, progressive, inexorable, grinding truncation of resources, both personnel and materiel, coupled with very limited opportunities for new FTE hires and promotions, only to be followed, after FY 1999, by stabilization—until a new steady state of personnel turnover is reached—at a downsized level that permits new FTE recruitment and promotions only to the extent that vacancies are created by retirements or resignations, clearly does not constitute an incentive to remain in federal service. The cumulative result of the process now underway, should it not be halted and reversed, will likely be that many of NIH's best intramural scientists will elect to leave, thereby not only initiating deterioration of a world class biomedical research institution, but also leveraging its rate.

The unfolding of this doomsday scenario could not be happening at a more inopportune time for the nation. NIH is at the peak of its powers (*vide infra* for an assessment of its stature); it is blessed with a superb staff, visionary leadership, generally good and improving facilities and with extraordinary control over the quality of its staff, especially through authority on tenure appointments that is unique and unprecedented throughout the whole federal government. In short, it is poised as never before to tackle effectively the plethora of unbelievably promising scientific opportunities at hand to advance human health and well being.

The Presidential initiative to "rein-

vent" government is intended to make the federal government less costly as well as more efficient and responsive. It was designed to correct, wherever they existed in the vast bureaucracy, practices that subverted efforts to achieve the President's objective, such as excessive staffing and disproportionately large numbers of employees in higher salaried positions, leading to a top heavy and overly pyramidal hierarchical organizational structure that is widely believed to cause suppression of creativity and disempowerment of rank and file personnel. Whether or not the White House's diagnosis and prescribed therapy—including the overtones of Deming's "Total Quality Management" to which so much of Japan's economic growth and development has been attributed—are generally appropriate for the nation's federal bureaucracy as a whole is not an issue on which I have an opinion. But I can comment credibly on the applicability of the program to NIH's intramural research program.

The size of the intramural research program on the Bethesda campus has evolved as the outcome of a long series of legislative and executive branch decisions, extending over almost a half a century. True, the size of this program is discretionary—as also is that of the extramural research program—and could be reduced at any time, by legislative or executive branch action, to any level deemed to be appropriate to the prevailing circumstances. But a rational and defensible policy decision to shrink the intramural program should be argued, one would think, specifically on the merits of the case for redetermining the proper scale of a singularly outstanding federal research enterprise, and not simply be the non-specific outcome of a uniform, across-the-board, "one-size-fits-all" formula to stream-

line the federal government.

- The total expenditures of intramural research are surely misidentified as a federal government "administrative expense," a category whose curtailment was a major objective of the "National Performance Review," "Reinventing Government" and the "streamlining" plans. Intramural research expenses are undeniably programmatic, the cost of performing research, not administrative.

- The intramural research operation is not bloated, top heavy, inefficient, overstaffed, etc.—the principal charges against the federal bureaucracy as a whole to which "reinvention" is addressed.

- Flattening an overly vertical personnel pyramid, because the ratio of supervisors to other personnel is too high, may make sense in some situations. But it is not a rational policy for a scientific research operation and its imposition can only indicate a misunderstanding of the characteristics of the scientific research process. The civil service (or equivalent) grade levels of scientists in intramural research—as well as in other federal science agencies such as the U. S. Geological Survey—reflect the scientific expertise of, and the "market" for, that talent, rather than the managerial or supervisory responsibilities the incumbents shoulder. The relationship of scientists, inside or outside government, to lower grade level employees differs essentially from that in conventional workplace settings, of high level managers and supervisors to lower grade level employees. Typically, a scientist, of whatever eminence or distinction, collaborates with, rather than manages or supervises, a colleague or two, mentors one or two pre- or post-doctoral students and, perhaps, directs the work of a technical assistant or so. Compliance with the "reinvention" canons would

require either extending the span of control of scientists or reducing their grades—either a recipe for disaster.

- The emphasis placed thus far in this letter on the unfortunate impact of "reinvention" on NIH intramural research is not intended to ignore or minimize the baleful effect of the process on the staff entrusted with the scientific administration of NIH's extramural research activities. In this arena, the most detrimental consequences are to be felt in the reinvention specifications that target higher graded employees and the ratio of supervisors to other personnel. The grade levels of extramural scientist-administrators are based on the talent and expertise they embody. Many were only recently distinguished research scientists or renowned academic scholars. NIH relies on them, not to "manage" or "supervise" a large array of lesser bureaucrats, but for their knowledge of and good judgement about the science, the scientific priorities, and the science community at the cutting edge of the fields of science that fall within their portfolio of responsibility. The elimination of individuals of this calibre would surely impair the quality of the extramural programs over which they exercise administrative responsibility and, in the end, impair the totality of the nation's biomedical research program.

The fundamental reality is that the conditions that reinvention of government was crafted to correct do not generally exist at NIH. While several of the recommendations of NIH's internal study committee, the Resource Allocation Group, (RAG), make evident that slimming and streamlining of the management of several relatively small extramural and intramural research administrative functions

(See Call to Arms p. 32)

Eighth Research Festival

Research Festival, Once Again a Success

"Too many things overlapping."
"Hard to attend all sessions." "Gave up experiments to attend." "Very stimulating." "Good way to find out what else is going on at NIH." "Learned a lot."

These are some of the comments most often heard from Research Festival '94 attendees who were scrambling to get into a particular workshop or symposium. Most of the workshops filled early and it was standing room only—that is, if you were lucky enough to get into the room to stand.

Ask Cynthia Hinck from NIDDK, one of those sitting outside a crowded workshop. A newcomer to NIH in May, she was thrilled about the festival and had attended one symposium but was trying to get into the lecture by NICHD's Dr. Jennifer Lippincott-Schwartz on the "Role for microtubules and kinesin in membrane traffic between the ER and Golgi complex." Explaining why she was so disappointed, she said, "That is the general area I work in."

The '94 festival began on Sept. 19 and ran through Sept. 23, which included 3 days of symposia (6 total), workshops (53), and a poster session featuring NIH intramural research. The week-long event concluded with a 2-day Scientific Equipment Show.

Even though the festival ranks as one of the busiest weeks at NIH, preparations began long before that. In fact back in March 1994, calls went out to all ICDs inviting participation in the poster session. Only 420 applications could be accepted so requests were honored on a first-come basis. Dr. Richard Adamson, former director of



The speakers at the NICHD Distinguished Alumni Symposium on Sept. 19, 1994, were (front row, from l) Drs. Gerald Fischbach, Philip Leder; (back row, from l) William Chin, Stuart Orkin, Shirley Tilghman and Tasuku Honjo.

NCI's Division of Cancer Etiology, served as chairman of the organizing committee.

For the first time, NIH recognized the contribution of young scientists-in-training from across the country at this year's festival. Clinical residents in their first postgraduate year who had performed meritorious research were invited to participate. A committee of intramural scientists selected the 25 final abstracts chosen for presentation.

NICHD sponsored the 1994 Distinguished Alumni Symposium in which Dr. Philip Leder, a pioneer in the field of molecular genetics research, and five other distinguished alumni were honored. Leder began working for NIH during his summers as an undergraduate student, then later worked for several institutes—NHLBI, NCI, and NICHD—before leaving in 1980. He currently serves as the John

Emory Andrus professor of genetics and chairman of the department of genetics at Harvard Medical School and is also a senior investigator with the Howard Hughes Medical Institute. He was presented with the 1994 Distinguished Alumnus Award at the end of the first symposium on Monday, Sept. 19.

Visiting NIH's eighth research festival was Dr. Eliza Spiva from California. After viewing the posters displayed in the tents during the poster session, he probably summed up the general feelings of most participants at the festival with his comments: "Inspiring. Science communication is a good thing. This research festival is a wonderful thing to do."

The 1995 Research Festival is scheduled for the week of Sept. 18-22. Details about the program will be in the next issue of NIHAA Update.

Calendar of Exhibits and Upcoming Events

SPRING

An exhibit entitled "The Birth of Clinical Medicine: Paris 1794-1848" will be on display in the main lobby of the NLM (Bldg. 38, 8000 Rockville Pike) through May 5. Prepared by NLM's History of Medicine Division staff from rare works in its collection, the exhibit will illustrate the revolutionary advances that took place in the medical world of Paris in the decades following the French Revolution. These include the development of the link between clinical diagnosis and autopsy, the working out of the pathology of tuberculosis, invention of the stethoscope, developments in medical education, and reforms in hospital design and administration. For more information call (301) 496-5961.

APRIL

The NIH Director's Cultural Lecture will be on Tuesday, Apr. 25, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker is Dr. Sherwin B. Nuland, clinical professor of surgery, Yale School of Medicine. The title of his talk is "To See Ourselves as Others See Us: The Artist Looks at the Doctor."

The 8th Paul Ehrlich Lecture, sponsored by the Foundation for Advanced Education in the Sciences, Inc., is on Wednesday, Apr. 26, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker is Dr. Stanley B. Prusiner, professor of neurology and biochemistry, University of California, San Francisco. He will speak on "Present State of the Prions."

MAY

On Wednesday, May 3, at 3 p.m. in Masur Auditorium, Bldg. 10, Dr. Roger E. Meyer, past president of the Ameri-

can College of Neuropsychopharmacology (ACNP), will celebrate the 25th anniversary of the National Institute on Alcohol Abuse and Alcoholism. He will talk about "Alcohol Treatment Research: New Prospects, New Methods."

Another NIH Director's Lecture will be on Wednesday, May 17, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker is Dr. Carla Shatz, professor of neurobiology, University of California, Berkeley. She will speak on "Brain Waves and Brain Wiring."

The NIH Director's Lecture will be on Wednesday, May 24, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker is Dr. Elizabeth H. Blackburn, professor and chair, department of microbiology and immunology, University of California, San Francisco, who will speak on "Altering

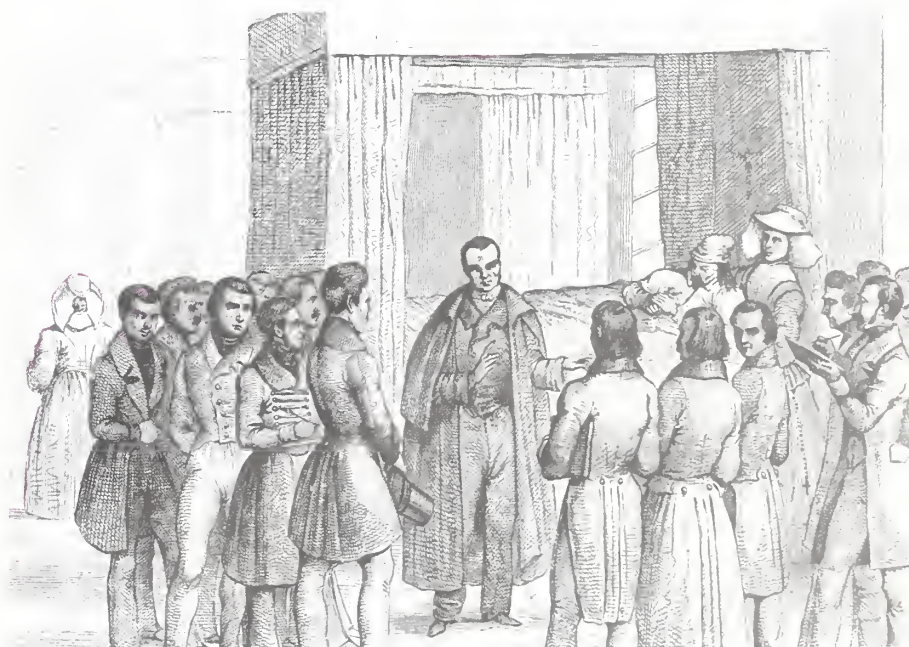
Telomerase RNA: Enzymatic and Cellular Consequences."

The Annual Fogarty International Lecture will be Wednesday, May 31, at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker is Professor Manfred Eigen, head, department of biochemical kinetics, Max Planck Institute for Biophysical Chemistry, Gottingen, Germany. He will speak on "Sorting Single Molecules in Evolutionary Research."

JUNE

The annual meeting of the NIH Alumni Association (NIHAA) will be held on Saturday, June 10 at the Mary Woodard Lasker Center (the Cloister), Bldg. 60. Invitations with details will be mailed to NIHAA members in May.

For more information about various lectures and events at NIH, call (301) 496-1766. For information about NIHAA call (301) 530-0567.



This etching by Alexandre Lacauchie, showing bedside teaching in a hospital setting, entitled "The Birth of Clinical Medicine: Paris 1794-1848," is at the NLM exhibit.

News From and About NIHAA Members and Foreign Chapters

Dr. Habeeb Bacchus, who was with the Metabolism Service, NCI, from 1957 to 1959, is now chief of medicine, and chief of endocrinology and metabolism at Riverside General Hospital in California and professor of medicine at Loma Linda University School of Medicine. In May 1994, he received the Lifetime Educator Award from the department of internal medicine at Loma Linda University "in recognition of lifetime dedication and commitment to excellence in the education and training of house officers."

Calvin Baldwin, former NIH associate director for administration and NIHAA vice president, has been elected to a second term on the Bethany Beach, Del., town council.

Dr. William J. Blot, who recently retired from the National Cancer Institute, where he was chief of the Biostatistics Branch, has established a new company based in Rockville, Md. The company, the International Epidemiology Institute, specializes in the conduct and management of research related to health and environmental issues.

Dr. Paul Calabresi, who was a field investigator at NCI from 1956 to 1960, is professor and chairman emeritus, department of medicine at Brown University. He recently stepped down as chair of the National Cancer Advisory Board, having served since 1991, but he will remain a member. At the October 1994 meeting of the NCAB, he was appointed cochair with Dr. J. Michael Bishop of the NCAB ad hoc working group that has been established to look at the intramural organization of NCI. Other NIHAA members of the committee include Dr. John Minna, director, Simmons Cancer Center, University of Texas and Dr. Samuel

A. Wells, Jr., Bixby professor and chairman, department of surgery, Washington University School of Medicine.

Dr. Thomas Caskey, who was at the National Heart and Lung Institute as a resident associate and senior investigator from 1965 to 1970, is president of the international Human Genome Organization and head of a major genetics group at Baylor College of Medicine in Houston. In January 1995, he became senior vice president for Merck & Co's West Point, Pennsylvania, facility, overseeing Merck's vaccine, cancer and HIV programs, and its new genomics program.

Dr. Darla Danforth, former director of the Nutrition Coordinating Committee, OD, NIH, and who was at NIH from 1986 to 1993, has accepted the position of senior nutrition science advisor in of the Office of Disease Prevention in DHHS.

Dr. Glenn A. Evans, an NIH predoctoral trainee in the Medical Science Training Program from 1975 to 1979, has left his position at the Salk Institute for Biological Studies in La Jolla, where he was director of the Human Genome Center concentrating on completing a physical map of human chromosome 11. In July 1994, he was appointed "Eugene McDermott Distinguished Professor in Human Growth and Development at the University of Texas Southwestern Medical Center at Dallas, and Director of the McDermott Center for Human Growth and Development. I am also professor of internal medicine and biochemistry and will be director of the Genome Science and Technology Center of the National Center for Human Genome Research at Southwestern Medical School," he writes.



Vernice Ferguson was chief of the nursing department at the Clinical Center from 1973 to 1980, when she became director of nursing at the Veterans Administration and then assistant chief medical director in 1992. Presently, she holds the Fagin family chair for cultural diversity in the School of Nursing, University of Pennsylvania and is president of the International Society of Nurses in Cancer Care. She is a fellow of the American Academy of Nursing and past president and an honorary fellow in the Royal College of Nursing of the United Kingdom, the second American nurse so honored. She also is past president of Sigma Theta Tau International. Recently she was elected to the NIHAA board of directors.

Dr. Sid Gilman, a research associate in neurophysiology at the National Institute of Neurological Diseases and Blindness from 1958 to 1960, is professor and chair of the department of neurology at the University of Michigan in Ann Arbor. He has been appointed to the National Advisory Neurological Disorders and Stroke Council, the major advisory panel of the National

Institute of Neurological Disorders and Stroke. He is an authority on cerebellar and basal ganglia motor functions, and is also widely known for his extensive PET studies of the brain.

Dr. Robert N. Golden, a medical staff fellow at NIMH from 1983 to 1985, has been appointed chair of the department of psychiatry at the University of North Carolina at Chapel Hill. Prior to that appointment, he served as professor and associate director of the General Clinical Research Center and the Mental Health Clinical Research Center at UNC, as well as director of the Clinical Psychobiology/Pharmacology Research Fellowship Training Program.

Dr. Murray Goldstein, director of the National Institute of Neurological Disorder and Stroke for the last 10 of his 40 years at NIH before retiring, was appointed medical director, United Cerebral Palsy Research and Education Foundation and medical advisor to the United Cerebral Palsy Association. In May 1994, he received a Doctor of Medicine *Honoris Causa* from the University of Lund in Sweden. He also has been appointed to the election committee of the Canadian Medical Hall of Fame and the Dana Foundation Awards in Medicine and Education. In addition he recently was elected to the NIHAA board of directors and the board of directors of the Academy of Medicine, Washington, D.C.

Dr. Joe R. Held, past president of the NIHAA and former director of the Division of Research Services from 1972 to 1984, has returned to work part time for Microbiological Associates (MA), as director of laboratory animal health services. MA is the company for which he was working when he suffered a ruptured cerebral aneurysm in October 1992. MA carries out a wide

variety of testing services in the biotechnology and laboratory animal health fields.

Dr. Henry R. Hirsch, who was a physicist in the Laboratory of Neurobiology, National Institute of Mental Health, from 1961 to 1963, is now in the department of physiology and biophysics, University of Kentucky. He writes that his "current research is in theoretical biology, specializing in gerontology and cell kinetics. My latest project is a computer model of waste-limited cell culture growth."

Dr. Walter Holland, a member of the NIHAA board of contributing editors, and Fogarty scholar-in-residence, 1984-1985, has retired from the department of public health medicine, St. Thomas Campus, London. Recently, he was honored with a festschrift held in London and attended by more than 200 people representing 17 countries. Past and present members of his department presented papers showing the wide interests of his department.

Dorothy P. Horlander, who from 1969-1980 was chief of the International Visitor Center at Fogarty International Center and prior to that was in Special Events at the Clinical Center from 1956 to 1969, now lives in Snellville, Georgia, having moved there from Florida, where she lived from 1981 to 1992. She and her husband have travelled extensively throughout Europe and the British Isles; and also the Pacific Northwest. She is active in National Association of Retired Federal Employees and is president of her neighborhood homeowners association.

Dr. Edwin Jacobs, who was at the National Cancer Institute from 1976 to 1985, as program director for the cooperative groups, and associate chief,

Clinical Investigations Branch, DCT, is presently associate executive officer of Northern California Oncology Group, and a consultant to Monsanto and G.D. Searle. He also is clinical professor of medicine (oncology) at the University of California, San Francisco, and is attending physician for melanoma and head and neck cancer patients, and a member of the clinical scientific protocol review committee, Cancer Center, UCSF.

Dr. Hussein M. Khaled, secretary of the NIH Egyptian Alumni Association, writes that the group has launched a newsletter in both Arabic and English. They also helped organize a party celebrating the 25th anniversary of the National Cancer Institute of Egypt.

Dr. Mark S. Klempner, who was in the Laboratory of Clinical Investigation, NIAID, from 1976 to 1978, is now professor of medicine in the division of geographic medicine and infectious diseases at New England Medical Center Hospitals. Last Oct. 8, he was presented with the 1994 Squibb Award of the Infectious Disease Society of America. The award, the society's highest research honor, recognizes outstanding achievement overall by a society member who is under age 45. Klempner will donate the cash award to the Sheldon M. Wolff Professorship in Medicine. Wolff, who received the same award in 1976, was a mentor to Klempner.

Dr. John LaRosa, who was an NHLBI clinical associate from 1967-1969 and chief resident from 1969-70, has left his position at George Washington University Medical Center to become chancellor of the Medical School at Tulane University in New Orleans. His wife Dr. Judith LaRosa, deputy director of the Office of Research on

(See *Members p. 10*)

Members (continued from p. 9)

Women's Health, also has left NIH after 17 years of service. She will join Tulane University School of Public Health and continue her work on women's health research.

Terry L. Lierman, an NIH intern in several institutes from 1971 to 1974, who is president of Capitol Associates, has also started a company with former Governor and Senator Lowell P. Weicker, Jr., and Robert Dresing, who was president of the Cystic Fibrosis Foundation. The company, DLW, Inc., located in Bethesda, Md., with programs already started throughout the U.S., is building a nationwide network of rural health centers. In addition, there is a mail order pharmaceutical division, a direct mail division, home infusion and an innovation project stressing the importance of medical research.

Dr. Marc E. Lippman, who was head of the medical breast cancer section, Medicine Branch, NCI, is now director of the Vincent T. Lombardi Cancer Research Center, Georgetown University, Washington, D.C. He received from the Susan G. Komen Breast Cancer Foundation the 1994 Brinker International Award for Breast Cancer Research. He was honored with the Basic Research Award for work helping "to bridge the gap between basic tumor biology and clinical application" in breast cancer. The award included a \$10,000 honorarium, a citation, and a statuette.

Dr. Harald Loe, director of the National Institute of Dental Research from 1983 to 1994, is now university professor in the department of periodontology at the University of Connecticut Health Center. Following his retirement, Loe has received several

honors: Gold Medal for Excellence in Research from the American Dental Association, an honorary doctorate from the University of Milan, the Paul Goldhaber Award from the Harvard School of Dental Medicine, honorary member of the American Dental Trade Association and a Public Health Award from the Scandinavian School of Public Health.

Dr. Frank L. Meyskens, who was at NCI in the Medicine Branch, Laboratory of Tumor Cell Biology, from 1974 to 1977, is director of the University of California at Irvine Clinical Cancer Center. The UCI Cancer Center was the only new NCI-designated cancer center in FY94. There are 54 NCI-designated cancer centers.

Ollie S. Monger, secretary to the director, National Center for Research Resources, retired on Mar. 31, 1994,

after a 41-year federal career (the last 39 spent at NIH). She has joined the Friends of the Clinical Center as an administrative assistant.

Dr. Elizabeth Neufeld, a biochemist with NIDDK from 1963 to 1984, during which time she served as chief of the Genetics and Biochemistry Branch, is presently professor and chair of the department of biological chemistry at the UCLA School of Medicine. In October 1994 at a White House ceremony, Neufeld received the National Medal of Science, the highest award for scientific achievement bestowed by the federal government. She was cited in particular for her research on Hurler and Sanfilippo syndromes. Her work led to diagnostic tests for the two disorders and later to the development of new therapies. Her selection "is an enormous honor," Neufeld said in an interview with the *LA Times*.



A portrait of Dr. Bernadine Healy, 13th NIH director, was hung in Bldg. 1 at a ceremony Oct. 12, 1994. On hand for the unveiling were Dr. Harold Varmus, Healy's successor, and the artist who rendered the portrait, Ruth Bryant of Amarillo, Tex. Many wellwishers gathered in Wilson Hall for a brief ceremony and remarks. The portrait was then placed outside the director's office door on the first floor of Bldg. 1, where this photograph was taken.

Dr. Robert Oldham, who was director of the Biological Response Modifiers Program for NCI's Division of Treatment, writes that since he left he has "continued in cancer research and continued my work as an oncologist, now as director of the Biological Therapy Institute and president of Cancer Therapeutics Inc. In addition, we have initiated comprehensive outpatient cancer therapies."

Dr. Paul Parkman, who was on campus from 1963 until his retirement in 1990 as director of the Food and Drug Administration's Center for Biologics Evaluation and Research, is now a consultant. Parkman is a collector of contemporary American art glass and is president of the James Renwick Alliance, the support group of the Renwick Gallery in Washington, D. C.

Samuel Poiley, who was at NCI in cancer chemotherapy as head of the mammalian genetics and animal production section from 1933 to 1974, is now living in Florida. He writes that he "has a photo of the old monkey house" and that "the first means of transportation at NCI was a horse and wagon. It was replaced by a small Ford truck which was confiscated from a bootlegger (a purveyor of white lightning)."

Dr. Denis Prager, who was at NIH from 1960 to 1983, has left his position as director of the Health Program for the MacArthur Foundation, to establish a private consulting practice devoted to helping organizations think, plan, and act more strategically. The company is called Strategic Consulting Services and is located in Chicago. Prager writes that "I hope to work with foundations, public and private research institutions, and other organizations in conceptualizing, planning, and implementing programmatic and institutional development initiatives."

Linda Rhoads, who was at NIH from 1971 to 1988, finishing as chief of Special Events at the Clinical Center, is now living in Virginia Beach and is the principal broker for Dragas Homes Realty.

Dr. Richard L. Schilsky, a clinical associate in the Medicine Branch and Clinical Pharmacology Branch, Division of Cancer Treatment, NCI, from 1977 to 1981, is now professor of medicine and director of Chicago Cancer Research Center. He became chairman-elect of the cancer & leukemia group B at the cooperative groups's board meeting in November 1994. He will become chairman of the group in April 1995.

Dr. Paul J. Schmidt, who was chief of the blood bank department (now transfusion medicine department) at the Clinical Center from 1954 to 1974, has been since 1975 head of transfusion medicine at Florida Blood Services in Tampa. He also is professor of pathology at the University of South Florida. He writes that "recently, I have been commuting to Puerto Rico twice a month for the Blood Services of the American Red Cross." He also is clinical professor of pathology at the University of Puerto Rico.

Dr. David Scott, who was at NIH from 1944 to 1965 and then from 1975 to 1982, as director of the National Institute of Dental Research, has moved back to this area from Arizona. He was recently elected to the NIHAA board of directors (see story on p. 22).

Dr. Leon Smith, senior assistant at NIAID, 1957-1959, is director of medicine and chief of infectious diseases at Saint Michael's Medical Center, N.J. In October 1994, he was named president of the board of directors of the National Foundation of Infectious



Diseases (NFID). Based in Bethesda, NFID was established in 1973 as a non-profit, nongovernment organization to support research, education and the prevention of infectious diseases. Smith also is professor and chairman of the department of internal medicine at Seton Hall University School of Graduate Medical Education, and professor of medicine and professor of preventive medicine/community health at the University of Medicine and Dentistry of New Jersey.

Dr. Bing-Wen Soong, who was a medical staff fellow, National Institute of Neurological and Communicative Disorder and Stroke, from 1985 to 1987, writes that he is with the Institute of Neurology at the Veterans General Hospital in Taipei, Taiwan.

Dr. Harold "Red" Stewart, who has had a long and distinguished career at the National Cancer Institute since 1937, is still on campus as an NIH scientist emeritus. He is a graduate of Jefferson Medical College Class of 1926, and at the school's opening exercise, on Aug. 30, 1994, he was honored with the presentation of the Dean's

(See *Members* p. 12)

Members (continued from p. 11)

Medal for his achievements as a physician, educator, and cancer researcher.

Dr. P. Roy Vagelos, senior surgeon and then head of the section of comparative biochemistry, Laboratory of Biochemistry, NHLBI, from 1956 to 1966, has retired as chairman and chief executive officer of Merck & Co. Recently he became CEO of Regeneron Pharmaceuticals, Inc. The company, based in Tarrytown, N.Y., specializes in the discovery and development of biotechnology-based compounds to treat neurodegenerative diseases.

Dr. Gary Williams, who was at NCI in the Etiology Division, 1969-1971, is now director of medical sciences at the American Health Foundation in Valhalla, N.Y. He writes that the foundation will conduct an international course on the safety assessment of pharmaceuticals on May 7-13, 1995. For more information, contact the American Health Foundation, 1 Dana Road, Valhalla, N.Y. 10597, (914) 789-7140 or fax (914) 592-6317.

Dr. W. Rodney Withers, who was at NCI in the Laboratory of Physiology, section of radiobiology from 1966 to 1968, has been named chair of the department of radiation oncology at the UCLA School of Medicine. He currently is interim director of UCLA's Jonsson Comprehensive Cancer Center. As chair of UCLA's department of radiation oncology, Withers oversees the use of radiation therapy for patients with cancer. He also manages the department's research and education programs. Currently, he is an American Cancer Society clinical research professor studying the way in which cancer spreads through the body as well as how radiation can be most effectively used to treat cancers.

Attention

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update* at 9101 Old Georgetown Rd., Bethesda, Md. 20814

Name

Home Phone

Home address

News, include dates/position at NIH and photo if possible

Suggestions for newsletter

Suggestions for NIHAA

Notes from Two NIHAA Committees

The Membership Committee

By Dr. Thomas E. Malone

The goal of the membership committee when it first met a year ago was to find ways to increase the membership of NIHAA.

The initiatives described in the Spring 1994 *Update* are still ongoing but were temporarily reduced in tempo when it became apparent that the membership database needed remodeling and updating. This not only reflected the need for a young organization to revise its method of collecting and storing information but also an opportunity to take advantage of the latest in computer technology. So, the membership committee set out to do this before adding any appreciable new data to the old system which, by the way, was found to be quite functional.

As a result, the membership committee, the NIHAA central office and volunteer help from the NIH Division of Computer Research and Technology have worked to vastly improve the ability of the NIHAA to access information in its membership database. New standards and systems for entering and retrieving information have now been established. This was a tedious but gratifying accomplishment. Many hours of work and discussion were needed to bring the old database into compliance with the new standards. In addition, the design of a much needed new membership application went



Dr. Thomas Malone

through many revisions before a satisfactory version was produced. One of the most visible and practical results of the database changes will be the production of a membership directory which should be available sometime in 1995. Special thanks are due Emma Shelton, Sol Eskenazi and Bel Ceja from the membership committee, Harriet Greenwald and Mary Calley Hartman from the central office, and Hal Fredrickson from NIH's Division of Computer Research and Technology. This was truly a team effort.

In addition to changes in the database system, the membership committee recommended the following changes which have been approved by the NIHAA board of directors:

- The Membership year is now June 1 to May 31.
- A Two-Tiered Dues System. Members joining before December 1 pay \$35, those joining after Dec. 1, pay \$17.50.
- Active Membership. Dues notices will be sent on March 15 and July 1 in future years. Members delinquent in dues on Sept. 1 will be dropped from active membership.
- Increase in Dues for Life Membership. Life Members now pay \$350.

The Historical Committee

This is a brief update on the historical committee. We are sorry to have to report that Leon Jacobs because of his health has had to resign as chairman of the committee. He still is interested

and will continue to work with the committee as much as he can. Richard L. Seggel agreed to take over as committee chair. Current members are: Richard L. Seggel, chair; Bayard Morrison, Paul Q. Peterson, Helen Schroeder, Marvin Schneiderman, and John Utz. Other members who have been involved are Jack Davidson,



Richard L. Seggel

Herman Kraybill, Lewis Sargent and Emma Shelton.

Members of the association who would like to join the group are urged to contact Harriet Greenwald, an

ex officio member of the committee, at (301) 530-0567.

Another way that members also can help the committee is by donating old documents or papers, dated and identified photographs, or other NIH historical memorabilia. Mildred Dougherty, who was at the Clinical Center, recently sent to the office several NIH booklets with many photographs from the 1950's and 1960's. Richard Henschel, who was the executive officer at the CC, NCI and NHI, 1947-1969, also sent us memorabilia. We want to thank both of them very much for their contributions. We still are interested in old NIH telephone books in use before 1954, and in Scientific Directories and Bibliographies for years prior to 1969.

Please remember that we welcome your donations and/or your active participation as a member of the NIHAA historical committee or as a volunteer for a particular project that the group might be involved with in the future.

Nobelists (continued from p. 1)

Dr. George A. Olah, who is Loker distinguished professor of chemistry at the University of Southern California.

In 1970, Rodbell discovered that signal transmission requires a cellular molecule called guanosine triphosphate, or GTP. In 1977, Gilman identified the proteins to which GTP binds and named them G proteins. G proteins



Dr. Alfred Gilman

are a family of proteins bound to the cell surface membrane that serve as intermediaries between incoming signals such as some hormones and drugs and the cellular proteins that respond to these signals. G proteins have been shown to play many roles in normal cellular function, including cell growth and neurotransmission. Aberrations in G proteins and their functions underlie a variety of disease states, from cancer to cholera.

Rodbell followed his discovery of the signal transmission function of GTP with continued work on the nature and mechanism of G protein action in cells and membranes. Today there are 16 known G proteins and scientists have identified more than 300 receptors on cells affected by them.

Gilman's most recent work has focused on the molecular details of the

shape and function of both G proteins and their cellular targets. Beyond their roles as premier researchers in molecular pharmacology, both Rodbell and Gilman have made important contributions in training a new generation of scientists who are performing at the forefront of biomedical research.

According to NIH deputy director Dr. Ruth L. Kirschstein, "Drs. Rodbell and Gilman have made significant findings in understanding how cells perceive and react in a coordinated way to the thousands of messages that bombard them. This Nobel Prize underscores how important such basic studies are to understanding normal cell function and the diseases that result when cell processes go awry."

Olah's work focuses on the chemistry of carbocations and oxonium ions. These are highly reactive, positively charged organic molecules that are intermediates in natural and synthetic chemical processes. He pioneered methods for the generation and stabilization of these reactive molecules using compounds called superacids. This enabled him to determine the structure of carbocations and oxonium ions directly, using solid-state NMR spectroscopy and X-ray crystallography.

Olah has received more than \$4 million in research grant support from NIGMS between 1967 and 1993. He has been at USC since 1977. From 1965 to 1977, he was a professor of chemistry at Case Western Reserve University.

Rodbell has worked at NIH since 1956, first in the National Heart Institute, then in the National Institute of Arthritis and Metabolic Diseases (NIAMD, now NIDDK)—where his Nobel Prize-winning research was done—and, since 1985, in NIEHS. He served as scientific director of NIEHS from 1985 to 1989.

Gilman, now a member of the NIGMS advisory council, has been an NIGMS grantee since 1985. From 1972 to 1985, his research was supported by the National Institute of Neurological Disorders and Stroke. His research support from NIH has totaled more than \$6 million.

His association with NIH began in 1962, when he received predoctoral



Dr. George A. Olah

training support for his M.D.-Ph.D. studies at Case Western Reserve University. From 1969 to 1971, he did postdoctoral research at NIH in the laboratory of Nobel laureate Dr. Marshall Nirenberg with support from the NIGMS Pharmacology Research Associate Program.

Rodbell, now a resident of Chapel Hill, N.C., and the father of four (including a son who is known to many NIH'ers as one of the R&W-authorized vendors who occasionally visit campus), is remembered as an enthusiastic mentor by those still at NIH who worked with him in the early 1970's, when a series of five papers on the subject of GTP won him the acclaim recognized by the Nobel Prize.

"He was a superb mentor," recalls Dr. Constantine "Dean" Londos, who succeeded Rodbell as chief of the mem-

brane regulation section, now a part of NIDDK's Laboratory of Cellular and Developmental Biology but then a component of NIAMD's Laboratory of Nutrition and Endocrinology. "Marty was in many ways the ideal mentor. He was very upbeat. He got excited about any piece of information you got. He was not the aloof, professorial type. He was here minute to minute, always available.

"The important thing he taught everybody was that it was not important if your data failed to conform to the preconceived ideas held either by you or by people in the field. We were not to worry about conforming, or to worry that our results were out of step. He would make you think about things. His approach was, 'Your information is real. It's telling you something.'

"He wasn't a plodder," Londos continued. "He was the kind who got inspirational flashes, then would run into the lab and do experiments. It was a good introduction for those of us getting started with our careers. He gave people a great deal of independence. Any reasonable idea that you would bring to Marty was just fine with him."

Londos, who spent 14 years with Rodbell starting in December 1971, does experiments today that he calls "a direct extension of work I was doing with Marty, only we're further downstream now from the work honored by the Nobel."

Rodbell phoned Londos shortly after learning of his honor early on Oct. 10. Already on the phone with another colleague who broke the Nobel news, Londos put that caller on hold only to find that Rodbell himself was on call-waiting.

"He was elated," said Londos, "and he wanted to share his elation with his colleagues."

"Marty Rodbell is one of the finest examples of NIH intramural science. He demonstrates what imaginative investigators working in an open and

constructive environment can do," said Dr. Phillip Gorden, NIDDK director and a colleague of Rodbell's during the years he completed his prize-winning research. "It seems to me that all discussions of 'big science' and 'little science' vanish when we see what can be accomplished by creative people."

Of the 69 American Nobel laureates in physiology or medicine since 1945, 50—more than two-thirds—either had

worked at or were supported by NIH before winning the prize. In addition to Rodbell, the Nobel laureates who did their prize-winning research at NIH are Drs. Marshall Nirenberg (1968), Julius Axelrod (1970), Christian Anfinsen (1972), and D. Carleton Gajdusek (1976). Ten other Nobel Prize winners, including Gilman, worked in the NIH intramural program at some point during their careers.



Dr. DeWitt Stetten, Jr.

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Gottesman (continued from p. 1)

Dr. Lance Liotta as NIH deputy director for intramural research (DDIR), but in an acting capacity for starters.

During the asterisked year as acting DDIR, Gottesman made it clear from the beginning that he would not be a mere caretaker. "I told the scientific directors that I wasn't going to act like I was acting. People took me very seriously from the start."

Gottesman admits he had reservations about the job when it was first mentioned to him by Varmus just over a year ago. "I was a reluctant acting director," he divulges. "But I took it because I am very devoted to NIH. Dr. Varmus is also extremely persuasive, and he convinced me that we could improve the quality of life for scientists at NIH, and the quality of science, too."

"I think I got into [the DDIR post] pretty quickly. I really enjoy working with the senior staff in the Office of Intramural Research—Phil (Chen), Richard (Wyatt), Audrey (Boyle, his secretary) and my other associates in the office. I found that I enormously enjoyed the new NIH leadership—Ruth (Kirschstein) and Harold (Varmus) and the other deputy and associate directors. Obviously, working with Harold is a pleasure. It's very refreshing. We get to talk science a lot, which is an aspect of the job that I didn't think was possible. It's very valuable to both of us."

Both Gottesman and Varmus share a mentor at NIH—Dr. Ira Pastan.

"Ira brought us together, both scientifically and personally," Gottesman recalls.

Gottesman, who retains his post as chief of NCI's Laboratory of Cell Biology, got to know the intramural programs at NIH on a particularly intimate basis during the summer of 1993, when he served as cochairman with Dr. Jay Moskowitz of an internal NIH

group that gathered information on behalf of the external advisory committee (EAC), a congressionally mandated panel that studied intramural NIH from head to toe. Last May 4, the EAC issued 42 recommendations for improving intramural NIH. Gottesman adopted them as his marching orders in the past year.

"I became conversant with a lot of the issues of concern to the external advisors and the scientists during this process," he says. "It was a kind of tutorial for me."



Dr. Michael Gottesman

Two major issues identified by the EAC have been addressed during Gottesman's acting year: a new tenure-track and tenuring process that defines more clearly the rules governing these important appointments and makes the process more open to women, minorities and scientists with disabilities was instituted on June 17, 1994; also, review by the Boards of Scientific Counselors, which provide oversight of NIH's intramural research programs, has been made more rigorous and independent. The NIH manual chapter defining the functions of the BSCs is now finalized.

"These are both major documents," said Gottesman. "They form the cornerstone of our response to the EAC recommendations."

The third critical issue Gottesman tackled during his acting year was work place diversity. As one way of addressing this topic he meets regularly with an executive committee of the NIH women scientists' advisory group. "The first issue was pay equity, and we hope to have resolution on that shortly," he said. A recent report on underrepresented minority scientists at NIH found that NIH is seriously underrepresented by minorities in scientific careers, especially at the tenure level, and that the mentoring of training fellows has been neglected. Gottesman responded by creating an underrepresented minority scientists working group charged with developing a mentoring program and by working proactively to attract minority researchers at all levels.

With Marc Horowitz, he also has initiated a clinical research loan repayment program, modeled on the successful AIDS research loan repayment program in the Office of AIDS Research, as a mechanism for attracting scientists from disadvantaged backgrounds to NIH: the program enables scientists to pay off their education debts in expedited fashion while gaining valuable training experience in NIH clinics and labs.

"With a much expanded search process for tenure-track candidates—one that emphasizes women, minorities and scientists with disabilities both on search committees and as prospects for the laboratory—we hope to diversify the campus," Gottesman said.

Not bad for an inaugural year agenda, but what next?

"We have a lot of unfinished business," he says, drawing a deep breath. "We will continue our oversight of the quality of science done at NIH and emphasize the recruitment of the

brightest young scientists. Diversity is going to be a very long-term process. Our mentoring program, coupled with a tracking component so we can see how our fellows are doing once they get here, will be ongoing. I'm also committed to building a very strong clinical research program, which I'm doing with (Clinical Center director) Dr. John Gallin.

"We're also doing a lot of reviews," Gottesman said. "We're looking at the imaging facilities on campus, and at the animal facilities both on and off campus. We're also completing an implementation plan and progress report on the EAC recommendations including plans for reinventing intramural administrative processes, technology transfer, and the new Clinical Center, which we'll submit to the director's advisory committee."

Though his platter appears full with DDIR duties, Gottesman clearly relishes his NCI lab work, an enterprise which, he chuckles, derives no material benefit from his wearing the DDIR hat. "I run a very active lab. I meet several times a week with my fellows. We're working on the molecular basis of drug resistance and cancer, and also on the development of selectable gene therapy vectors." Tuesday and Thursday afternoons are reserved for the lab, as well as three or four evenings, plus weekends—in all, some 20 hours a week by his reckoning.

Does this experience enhance his DDIR perspective?

"Absolutely. No question about it," he enthuses. "Harold (who is also an NCI lab chief on the side) and I are much more sensitive to the needs of scientists and science because of it. I really believe I'd lose touch if I weren't working in the lab."

The dual perspectives are not without their peculiar consequences, he relates. Because he is both author and recipient

of occasional DDIR memos, an odd sense of disembodiment can occur: "Let's just say that to send and to receive a DDIR memo are two very different experiences," he laughs. "It just looks different when you're in the trenches. When you get these memos, sometimes you can't help but wonder what was in the mind of the sender."

Asked whether the DDIR post is qualitatively different from running NCHGR (where he was also acting scientific director for 6 months), he responds:

"For me, it's very different. The DDIR job is much more all-consuming. I feel [the issues] very strongly. At NCHGR, Elke Jordan was a terrific deputy. She had been running the place before I came. And the genome project was a very organized effort, which had the benefit of considerable strategic planning, all of which preceded my arrival. The DDIR is not as clean or as targeted a process. It's not as focused on specific areas as the NCHGR job."

Is the scope of the DDIR impossibly wide for one person to oversee? "I think anyone would find it hard, but I'm reasonably well suited to the task. I have a variety of interests and training, and a good deal of experience. But there are times when I need all kinds of expert assistance. And the scientific directors are really an outstanding group. They're primarily responsible for the quality of the science. My job is oversight, mainly."

Do his former trenchmates suspect he's turned bureaucrat? "I haven't detected any difference in treatment by my colleagues. I think people understand that I have the best interests of NIH at heart." He has begun to involve intramural researchers in the day-to-day activities of Bldg. 1 and has recently convinced Dr. Joan Schwartz, NINDS section chief, to be a part-time special assistant to the DDIR.

To keep in touch with the foot soldiers, Gottesman has instituted, with the help of Celia Hooper, also managing editor of the *NIH Catalyst*, a computerized DDIR bulletin board system (BBS, available under "NIH Campus Information" on gopher) that offers "direct means of communication with scientists. This office has a new openness, which is very important to me."

After the scientific directors meet every 2 weeks, Gottesman updates his BBS with minutes of their deliberations. Offering a visitor a quick desktop demonstration of the BBS, he recognizes an as-yet unmentioned initiative—the NIH environmental concerns task force—on the screen, and is quick to synopsise its proceedings. Another initiative—to advertise the availability of shared samples and kits among scientists in a sort of "Home Shopping Network" fashion—seizes his attention. That's the way Gottesman appears to operate—bright, fast, impassioned. Almost impatient for the next nifty idea.

"Anyone who ignores this BBS in favor of unsubstantiated hallway rumors is proceeding at their own peril," he half-cautions, half-advertises.

"Things have changed on campus," he concludes. "I think people are aware that we are committed to making it easier to do science around here. Our support of the trans-institute scientific interest groups and the two new NIH seminar series reflects ways we have encouraged intellectual interactions on campus. Also, Dr. Varmus is really vitally interested in the intramural program. That's important to me. It makes my job a lot easier because he's involved."

Gottesman's most difficult challenge might be to surpass the good start he's gotten in the past year. He may find himself saying, "Gottesman—he was a tough act to follow."

'State of the NIH'

Director's Advisory Meeting Illuminates Issues

By Rich McManus

The Dec. 2, 1994, advisory committee to the NIH director (ACD) meeting included a fascinating debate on the session's hottest agenda item—possible federal funding for and oversight of research on ex utero preimplantation human embryos.

The ACD voted 9-0 to accept the recommendations of its human embryo research panel, a 19-member group that studied the issue for 8 months before drafting guidelines.

There was surprisingly little drama over the 2-day discussion of the embryo issue—virtually no objections arose from either ACD members or from 21 advisory council representatives invited to the meeting—despite the fact that NIH logged nearly 60,000 pieces of correspondence last fall decrying the proposed research.

Several hours after the ACD meeting, however, the White House barred NIH from funding the most controversial of the approved studies—deliberate creation of embryos for experimental purposes.

The most impassioned testimony on the embryo issue came from Dr. Steven Muller, chairman of the embryo panel and president emeritus of Johns Hopkins University. Offering what he emphasized were his own views, not the panel's, he said, "Most members of the public know very little about the intricate details of human reproduction... The overwhelming bulk of the letters [against the research] are prepared responses, single-sentence postcards, or names on petitions. I believe that public ignorance was exploited, and that that ignorance was manipulat-

ed into hostility... This research needs restraint and regulation...the public interest is better served by [our] guidelines, not the current laissez-faire."

For several hours panelists and committee members traded insights on how best to persuade the American public of the merits of embryo research, which fall into roughly five categories: improved treatment of both male and female infertility; better contraceptives; preimplantation diagnosis and therapy of severe birth defects; better understanding of cancer; and avoidance of repeat miscarriages.

Dr. Robert G. Grossman, NINDS council member and chair of the department of neurosurgery at Baylor College of Medicine, described the promise of helping infertile couples and couples at risk of having children with birth defects, and proceeded from there to other anticipated benefits that might counterbalance public misgivings about tinkering with early-stage human life.

Panelists appeared to agree with Dr. Ralph Snyderman, NIAMS council member and dean of Duke University's medical school, who theorized that there is a core group of about 20 percent of the population that is unalterably opposed to human embryo research. Proposals to educate the public ranged from national town meetings, to Internet discussion groups, to massive mobilization of health voluntary organizations and scientific societies.

"An extended national debate on ethical issues in science is needed," said Dr. John W. Eckstein, a professor at the University of Iowa's College of Medicine and ACD member. "A sort of national steam blowing-off could be

therapeutic."

Echoed Muller, "A series of national conferences could not so much settle the issue as educate people. That would be a valuable exercise in itself, even if the research were eventually legislated against."

The rest of the meeting was rather newswy, even though reporters and audience members fled in droves once the agenda passed the embryo stage.

Federal streamlining

• The federal streamlining initiative is expected to result in a 15 per cent decrease in NIH workers by 1999; the employment level by then will be below the 1984 staffing level. While NIH is more than 500 positions below its 1994 ceiling due largely to a hiring freeze, the agency must cut 177 slots by the end of 1995 at the GS-14 level and above. "I'm not sure we'll be able to achieve that," said Varmus. "At NIH, you're talking about scientists or grant managers and program people. We're arguing quite vehemently in many quarters for some exemption."

• Although the NIH budget increased 3.51 percent in FY 1995, the gain was "subinflationary," said Varmus. "We're in the throes of working on the '96 budget... Our support in Congress has always been bipartisan—because disease is bipartisan—and I expect we'll maintain amicable relations with Congress."

On Other Fronts

• Some seven scientific director positions are currently being recruited for, reported NIH deputy director for intramural research Dr. Michael Gottesman. Also, the NCI intramural program is now undergoing a thorough review by a blue-ribbon panel.

- Gottesman's report on how intramural NIH has implemented 42 recommendations of the external advisory committee (chaired by ACD members Dr. Paul Marks and Dr. Gail Cassell) gained warm approval. "My admiration is enormous for how you've addressed not only the letter, but also the spirit of the EAC recommendations," said Marks, who is president of Memorial Sloan-Kettering Cancer Center.

- The Clinical Center is currently downsizing from over 400 beds to a tar-

Most members of the public know very little about the intricate details of human reproduction... ..public ignorance was exploited, and ... manipulated into hostility...

get of about 250 beds in anticipation of turning wholly into a lab building. A new 250-bed hospital, "including a prominent day hospital," will be built "in the shadow of the current hospital," said Dr. John Gallin, CC director. Cost is expected to be \$380 million.

- "ICD use of the CC has decreased steadily in the last few years and morale has slipped at the hospital," Gallin said. Average bed occupancy is only 237 per day. The new hospital will be "smaller but much more efficient."

- As current patient care units are closed in the CC, some areas will become offices while other space will convert to laboratories to be used as the NIH Director's Reserve, an important recruitment tool.

NIHAA Forum

Science Advocacy or Ethical Hubris?

By Dr. Robert G. Martin

A panel of scientists and ethicists recently recommended unanimously that the NIH fund fetal research involving the intentional fertilization of human eggs for research purposes only. It took the White House less than a day to forbid implementation of this portion of the panel's recommendations. Something is amiss.

Individual members of the panel have released statements and given interviews suggesting that they were the victims of ignorance and malfeasance. They believe that if the public understood the benefits to be derived from this research, it would support their recommendation.

Maybe, and maybe not.

To my way of thinking, the problem of understanding lies more with the panel than with the public. And the understanding that is missing has to do not with science, but with moral philosophy.

Virtually all of the ethical constructs that man has devised over the millennia for regulating his behavior presume the sanctity of the human spirit. Yet each, from the most hedonistic, to the most divinely inspired, recognizes that conflicts can arise from the clash of fundamental principles. All hold that there can, and must be exceptions to "thou shalt not kill" but vehemently disagree as to where to draw the line.

Two irreconcilable points of view coexist in contemporary thinking and their incompatibility is the basis for much of the abortion conflict. There are those who hold that life commences at fertilization and only in the most dire circumstances can there be justification for terminating it. For them, use of the information on human fertility obtained from the type of research the panel rec-

ommended is as abhorrent as the use of information for the treatment of frostbite and burn trauma obtained from the Nazi medical experiments. Others define human life as commencing after the first trimester, and hence can argue that the cumulative benefit to society is the paramount consideration.

Leaving aside the president's decision for a moment, is it the role of gov-

Choosing between moral philosophies on the public's behalf only serves to convince one side or the other that our leaders in medical research are arrogant and dangerous.

ernment and the NIH in particular to decide between two deeply held ethical points of view? I think not. Rather, it is, and should be, our aim to recognize the legitimacy of both. That is largely what the government is doing—to neither side's satisfaction—on the abortion issue. Allow access, but don't demand it. It is what the panel should have recommended. Allow fertilization experiments to proceed with private money and at the risk to the researchers of legal prosecution, but do not sponsor it with NIH support.

Choosing between moral philosophies on the public's behalf only serves to convince one side or the other that our leaders in medical research are arrogant and dangerous.

Science Research Updates

Recombinant Hormone Improves Diagnosis of Thyroid Cancer

Recombinant human thyroid-stimulating hormone (rhTSH) is a safe and effective means of diagnosing residual cancer cells after the thyroid has been surgically removed, according to NIH researchers. They announced the results of Phase III trials in 129 patients at the American Thyroid Association's annual conference.

The most prevalent cancer of the endocrine system, according to principal investigator Dr. Bruce Weintraub of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), thyroid cancer is commonly treated by surgically removing the thyroid gland and then internally irradiating the area with radioactive iodine to identify and destroy any remaining cancer cells.

Thyroid-stimulating hormone (TSH) must be present in the body for the tumor tissue to take up the radioactive iodine. When the body senses an absence of thyroid hormone, it produces TSH to stimulate thyroid hormone production. Prior to the development of rhTSH, patients had to experience hypothyroidism, which produces disabling side effects, including weakness, intolerance to cold, and constipation. Patients often cannot work, and some refuse follow-up examinations to avoid these unpleasant side effects.

Patients in the trial received a single dose of rhTSH for two days. Their quality of life was greatly improved, with no major adverse effects. "We have shown that using recombinant human TSH or Thyrogen in humans is

safe and effective in stimulating radioiodine uptake without the disadvantages of hypothyroidism," commented Weintraub. About 12,000 Americans are diagnosed with thyroid cancer each year.

"I am excited about the study results, and I look forward to the availability of recombinant TSH to the medical community," said Dr. Lewis E. Braverman of the University of Massachusetts Medical Center, Worcester.

The Phase III trials included researchers from NIDDK/NIH, and ten other U.S. medical centers. Thyrogen, an orphan drug, was developed by the NIDDK/NIH with Genzyme as part of a cooperative research and development agreement. Genzyme is a human health care company that develops pharmaceuticals, biotherapeutic and diagnostic products.

Yo-Yo Dieting Benefits May Outweigh the Risks in Some

Contrary to popular opinion, weight cycling, also known as yo-yo dieting, does not have negative effects on body fat, metabolism, or the success of future weight-loss efforts, according to an article published in a recent issue of the *Journal of the American Medical Association*.

The National Task Force on the Prevention and Treatment of Obesity reviewed 43 studies on the effects of weight cycling on metabolism, psychological functioning, and health. According to its report, there currently is no compelling evidence that weight cycling is riskier than remaining obese.

"While the notion that weight cycling has negative effects on metabolism and health has become accepted by many, careful review of studies in humans does not support this conclu-

sion," said Dr. Susan Z. Yanovski, an NIH researcher and executive secretary of the task force, which was established by the National Institute of Diabetes and Digestive and Kidney Diseases.

Most studies in humans did not find that weight cycling affects the amount of body fat, the location of fat, or the probability of future successful weight loss. In addition, weight cycling does not appear to have negative effects on risk factors for illness such as high cholesterol or high blood pressure.

"A weight loss of as little as 5 to 10 pounds improves obesity-related conditions such as diabetes, high blood pressure, and high blood cholesterol," said Dr. Van S. Hubbard, director of NIDDK's Nutritional Science Branch. "Therefore obese individuals who suffer from any of these conditions should not have any reservations about attempting modest weight loss."

The task force concludes that obese individuals who try to lose weight should be ready to commit to life-long changes in their eating behaviors, diet, and physical activity. The task force also recommends that individuals who are not obese and who have no risk factors for obesity-related illness should not attempt to lose weight, but should try to maintain a stable weight and to prevent future weight gain.

Scientists Solve 3-D Structure of HIV Enzyme

Scientists at NIDDK have determined the 3-dimensional structure for the catalytic domain of HIV integrase, a key enzyme that is required for the AIDS virus to replicate itself. Their work was reported in the Dec. 23, 1994, issue of the journal *Science*.

In order for HIV to reproduce, the virus must insert a DNA copy of its

genetic information into the genome of a host human cell. Integrase is the HIV-encoded enzyme that is responsible for splicing HIV DNA into the human genome.

Knowing the 3-D structure of this important enzyme, researchers may be able to design a drug that could inhibit the action of this enzyme and block replication of HIV.

"The structure of the enzyme has until now eluded researchers because integrase clumps together in solution. This behavior has defeated all previous attempts to determine its structure," explains NIDDK scientist Dr. David R. Davies, whose group solved the structure. The breakthrough came when Davies' collaborators, NIDDK scientist Dr. Robert Craigie and coworkers found that the problem could be overcome by changing just a single amino acid in the catalytic domain of integrase.

HIV has three major enzymes: protease, which cuts precursor viral proteins; reverse transcriptase, which copies the RNA of the virus and makes DNA; and integrase. All three are vital to the virus and are appealing targets for drug design, but integrase is a particularly attractive target because "unlike reverse transcriptase and protease, there are no known cellular analogs of integrase," Craigie says. Because the function of integrase is unique, it may be possible for researchers to develop an inhibitor that would block this enzyme's action without inhibiting enzymes that are essential for the host cell.

A number of inhibitors have already been found for both protease and reverse transcriptase, and these are currently being tested in clinical trials. "The problem," says Craigie, "is that the virus rapidly mutates to escape these inhibitors."

Most effective of all, according to Davies, would be a "cocktail" of drugs based on inhibitors for all three of HIV's enzymes. The chance that the virus could simultaneously develop a resistance to drugs against three different targets would be extremely low.

HIV Inhibitor Identified in Saliva

Scientists have identified a protein in human saliva that blocks HIV-1, the human AIDS virus, from infecting cells. Their finding may help explain why AIDS does not appear to be spread by saliva.

Although HIV has been recovered from the saliva of infected individuals, the concentration of virus is low and recovery is infrequent. Additionally, laboratory studies have shown that saliva prevents HIV from infecting white blood cells, which are the normal targets of the virus.

For some time, scientists have been searching for the components in saliva that prevent HIV infection. It is known that saliva contains large molecules that help clear microbes from the mouth, but even when these molecules are removed, saliva's protective effect remains.

Now a research team led by Drs. Tessie McNeely and Sharon Wahl of NIDR have identified a factor that may play an important role. The scientists found that a small protein called secretory leukocyte protease inhibitor, or SLPI (pronounced sl'ppy) attaches to the surface of blood cells and blocks infection by HIV.

In a series of test tube experiments, McNeely and Wahl tested a battery of purified salivary proteins against HIV and white blood cells to see which substances protected cells from infection. Of the compounds examined, only

SLPI conferred substantial protection at levels normally found in saliva.

Further experiments showed that SLPI works by binding to the white cells and not to HIV. Interestingly, SLPI does not react with CD4, the receptor on the surface of white cells that attaches to HIV and gives the virus a foothold leading to infection. "The ability of SLPI to block HIV infectivity by reacting with a molecule other than CD4 is a significant finding," said McNeely. "The next step is to identify the SLPI receptor and determine the role it plays in HIV entry into host cells."

The investigators caution that much about SLPI's protective effect remains unknown. SLPI is found in varying levels in the coating of most mucous membranes, and is believed to be a natural protector against the body's own protein-destroying enzymes. However, the extent of SLPI's activity against HIV in fluids other than saliva, as well as its potential as a protective agent against HIV transmission, is yet to be determined.

RENEW NOW

RENEW NOW

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RENEW NOW

Fluoridation Marks 50 Years of Cavity Prevention

By Patricia Sheridan

On Jan. 25, 1945, at 4 p.m., one of the most successful public health projects in history began. Grand Rapids, Mich., became the first city in the world to fluoridate its drinking water, setting the stage for a dramatic national decline in the rate of dental cavities. Today, as water fluoridation celebrates its 50th anniversary, fluoride continues to be dental science's main weapon in the battle against tooth decay.

Fluoridation of the Grand Rapids water supply launched a 15-year study sponsored by the Public Health Service, the University of Michigan, and the city of Grand Rapids to monitor the rate of tooth decay among the city's 30,000 schoolchildren. After just 11 years, scientists announced that the rate of dental cavities had dropped more than 60 percent. For the first time in history, tooth decay—the inevitable cause of pain and suffering for generations of youngsters—was proven to be largely preventable. Today, more than 144 million Americans in approximately 10,500 communities drink fluoridated water, one of the best public health bargains. Water fluoridation costs an average of only 51 cents per person per year—the price of a candy bar. Over a lifetime, the \$38.25 expenditure for fluoride is less than the average cost of just one dental filling, about \$42.

Research on fluoride and its effects on tooth enamel began in earnest in the early 1930's under Dr. H. Trendley Dean, a dentist at what was then the National Institute of Health. Scientists had observed low decay rates among people whose drinking water contained high levels of fluoride, a naturally occurring mineral. Dean provided the first solid evidence linking the amount



Dr. David B. Scott examines the teeth of a Grand Rapids schoolgirl. He was the only examiner to participate in all 15 years of the Grand Rapids study. He later became the director of NIDR.

of fluoride in the drinking water with the incidence of dental decay. These studies provided the scientific foundation upon which the National Institute of Dental Research was established in 1948, with Dean as its first director.

By the early 1940's, dental scientists concluded that water containing 1 ppm fluoride would protect teeth from decay. Their theory was put to the test in 1945, when fluoride was added to the almost fluoride-free water supply of Grand Rapids. Former NIDR director Dr. David Scott was an investigator on the Grand Rapids project. He now recalls, "The most important historical feature of water fluoridation was that this public health measure simply replicated what had already been demonstrated in nature." The Michigan study and others carried out during the 1940's and 1950's confirmed that when fluoride was added to community water

supplies, decay rates dropped dramatically. Scott notes, "One of the most exciting experiences of my career was observing firsthand the benefits of fluoridation in the people of Grand Rapids."

From 1971 through the mid-1980's, three national surveys of children's oral health showed a continued decline in dental cavities, a trend attributed largely to the widespread use of fluoride in community water supplies, toothpaste, and other forms. The most recent survey in 1986-1987 found that American children had 36 percent fewer cavities than they did at the beginning of the 1980's. That decline followed a similar drop in the prevalence of tooth decay during the 1970's. And the news is good for adults too—studies show their tooth decay rates are also reduced as a result of water fluoridation. Despite these reductions, however, tooth decay remains a problem, particularly for those with poor oral hygiene and limited access to professional dental care.

Exactly how fluoride prevents cavities is not fully understood, but scientists do know that fluoridated water most benefits those who drink it from birth, and the protection holds throughout life for persons who continue to live in fluoridated communities. For the 26 million Americans who live in areas without central water systems, there are a variety of ways to receive fluoride, including fluoridated toothpastes, gels, mouth rinses, and other products. Although beneficial, fluoride from these sources is not as effective as water fluoridation in preventing tooth decay. Studies show that, even today, children who have always lived in a fluoridated community have up to 25 percent less decay than youngsters who have never lived in a fluoridated area.

NIH Notes for August 1994 to January 1995

AWARDS AND HONORS

Dr. Robert S. Balaban, chief of NHLBI's Laboratory of Cardiac Energetics, received the Gold Medal of the Society for Magnetic Resonance at the group's annual meeting in August. In its citation, the society noted Balaban's pioneering work in the application of nuclear magnetic resonance in biology and medicine, especially on the quantitation and visualization of water-macromolecule interactions in biological tissues ... **Dr. Bruce Baum**, chief of NIDR's Clinical Investigations and Patient Care Branch, was recently chosen as first recipient of the J. Murray Gavel Clinical Lectureship established by the Forsyth Dental Center. Baum, who is also NIDR's clinical director, presented the Gavel lecture on "From the Bench to the Clinic on a Salivary Gland," at the Forsyth Dental Center in Boston ... **Dr. Samuel Broder**, NCI director, was awarded the Jeffrey A. Gottlieb Memorial Award by M.D. Anderson Cancer Center. He was honored for his understanding of "the significant role of therapeutic research, recognizing the essential interaction between basic biology, therapeutic research, prevention research, and all related disciplines" ... **Dr. Richard Chadwick**, head of the biomechanics group in NCRR's Biomedical Engineering and Instrumentation Program, has been elected a fellow of the American Institute of Medical and Biological Engineering for his pioneering work in the application of engineering mechanics principles to research in biology and medicine, especially to the cardiovascular system and hearing ... **Dr. Giovanni Di Chiro**, chief of NINDS's Neuroimaging Branch, was awarded the Distinguished Scientist Medallion by the Institute for Clinical PET. He was recognized for his introduction of positron emission tomography with 18-fluoro-deoxyglucose (PET-FDG) in the assessment of brain tumors. This technique was later expanded for use in diagnosing tumors in nearly every part of the body ... **Dr. Jonas H. Ellenberg**, chief of the Biometry and Field Studies Branch, NINDS, has been elected a fellow of the American Association for the Advancement of

Science for "highly influential contributions in establishing the role of statistics in public health and medicine, particularly for statistical contributions to the understanding of the etiology, prognosis, and prevention of neurological disorders" ... **Dr. Gunther L. Eichhorn** has been named NIH scientist emeritus after retiring from NIA in May with 38 years of service. NIH gives the honorary title to distinguished retired research scientists so they may continue their research after retirement with lab space and technical resources ... **Dr. Robert C. Gallo**, chief of NCI's Laboratory of Tumor Cell Biology, received the first annual Dale E. McFarlin Award. The award was established in memory of Dr. Dale E. McFarlin, who served as chief of the NINDS Neuroimmunology Branch from 1975 until his death in 1992. Gallo was recognized for his pioneering achievements in human retrovirology ... **Dr. Clarence J. Gibbs, Jr.**, deputy chief of NINDS's Laboratory of Central Nervous System Studies, was recently elected an honorary member of the American Neurological

Association. He was chosen for his substantial academic contributions to the field of neurology ... **Dr. Ruth L. Kirschstein**, NIH deputy director, is the recent recipient of two awards: the National Public Service Award for 1994 as an outstanding practitioner in public service and the Roger W. Jones Award for Executive Leadership ... **Dr. Elise C. Kohn**, chief of NCI's signal transduction and prevention unit of the Laboratory of Pathology, has won the 1993 Arthur S. Flemming Award for her work leading to the first human clinical trials of signal transduction therapy ... **Dr. Henry Metzger**, director of the NIAMS Intramural Research Program, gave the R. E. Dyer Lecture on Jan. 4, 1995. He spoke on "Macromolecular Association and Signal Transduction" ... **Dr. Kenneth Olden**, NIEHS director, has been elected to membership in the Institute of Medicine of the National Academy of Sciences ... **Dr. Vivian Pinn**, NIH associate director for research on women's health, was recently nominated to the National Medical

(Continued on p. 24)



Dr. Peter Kador (second from l), chief of NEI's Laboratory of Ocular Therapeutics, was honored recently at the German Embassy with the Bundesverdienstkreuz (Cross of Merit of the German Federal Government). The medal was presented in the name of German President Roman Herzog by Thomas Matussek, minister of the Federal Republic of Germany for America. The award was presented to Kador for his longstanding achievements for cultural unity between the two nations, and for his organization of a 2-day National German American Choral Festival in which more than 2,000 singers representing over 50 choirs from the U. S., Canada and Germany participated. Kador is president of the Washington Saengerbund, a German choral organization founded in 1851. Shown at the ceremony are (from l) NEI Deputy Director Edward McManus, NEI director Dr. Carl Kupfer, and Matussek.

(Continued from p. 23)

Association's Hall of Fame, which honors those who have excelled in science and medicine ... **Dr. Lawrence J. Prograis, Jr.**, deputy director of the Division of Allergy, Immunology and Transplantation, NIAID, recently received the Clemens von Pirquet Award from Georgetown University Medical Center for significant contributions to the field of allergy and immunology. He also delivered the 22nd Annual Clemens von Pirquet Lecture, which focused on "Asthma: The National Cooperative Inner City Study" ... **Dr. John Ruffin**, NIH associate director for research on minority health, recently received a glass plaque and certificate from the National Medical Association at its 1994 board of trustees meeting. The awards recognized his "leadership, dedication, support and contributions toward improving the quality of life for youth" and for supporting the work of the association "in its endeavors to improve both the overall status of African American practitioners and the quality of health care for all Americans, especially the underserved" ... **Dr. Michael B. Sporn**, chief of the Laboratory of Chemoprevention, NCI, recently received the American Cancer Society's Medal of Honor. He received the award for "groundbreaking studies related to the growth of cells and chemoprevention," a term he invented in 1976 ... **Drs. Gary and Liliane Striker**, NIDDK researchers, were recently awarded the Malpighi Gold Medal for their contributions to renal pathology and for the use of molecular biology techniques to study glomerular diseases ... **Ronald Winterrowd**, chief of the Medical Arts and Photography Branch, NCRR, recently received recognition for the Branch from the Art Directors Club of Metropolitan Washington for continually meeting the highest standards in the graphic arts ... **Dr. Robert H. Wurtz**, chief of NEI's Laboratory of Sensorimotor Research, delivered the G. Burroughs Mider Lecture on Jan. 18, 1995, on "Brain Maps for Eye Movements."

APPOINTMENTS AND PERSONNEL CHANGES

Dr. Carl Banner has been named scientific review administrator of the neurological sciences-I study section in the Division of Research Grants ... **Dr. Kate Berg**, former-

ly acting chief of the Schizophrenia Research Branch and chief of the Genetics Research Program, NIMH, has been named deputy scientific director of the National Center for Human Genome Research. She will assist in the management of NCHGR's new intramural research program as well as continue studies on multi-gene disorders and on ethical and policy issues related to genetics research ... **Fernando Burbano** has been named director of information systems at the National Library of Medicine ... **Naomi Churchill** has been appointed director of NIH's Office of Equal Opportunity. Her last job was EEO director at the Federal Deposit Insurance Corp. and prior to that she headed EEO at the Department of Agriculture ... **Dr. Maria C. Freire**, head of the Office of Technology Development at the University of Maryland, Baltimore, and the University of Maryland, Baltimore County, has been named director of the NIH Office of Technology Transfer ... **Dr. Joseph F. Gallelli**, former chief of the Clinical Center Pharmacy Department, has been named senior advisor for biotechnology product development in the CC's Office of the Director ... **Dr. Michael Gottesman** on Oct. 30, 1994, was named NIH deputy director for intramural research (see article on p. 1) ... **Dr. Jorge Gomez** has recently joined the Grants Associates Program, Office of Extramural Research. The Grants Associates Program prepares scientists interested in science administration to become health scientist administrators. The program has contributed to the formation of future leaders at NIH and has a history of increasing diversity in the workplace ... **Dr. Zach Hall**, Lange professor and chair of the department of physiology at the University of California at San Francisco, has been appointed director of the National Institute of Neurological Disorders and Stroke. While at UCSF, Hall established one of the nation's leading programs in neuroscience research and graduate training. As the sixth NINDS director, he will oversee a staff of some 700 scientists, physician-scientists, and administrators and an annual budget of more than \$630 million ... **Janyce Hedetniemi** has been appointed first director of NIH's newly established Office of Community Liaison, located in the Office of the NIH Director. Among her responsibilities will be oversight and monitoring of activities such as: NIH's disposal of medical and pathological waste; the develop-

ment of NIH's campus master plan, including construction and transportation issues; and improvement in the way NIH interacts with people who live and work near NIH ... **Dr. David Henderson**, associate Clinical Center director for quality assurance and hospital epidemiology since 1988 and acting clinical director (1990), has been named Clinical Center deputy director for clinical care ... **Dr. Suzanne S. Hurd** has been named acting director of the National Institute of Nursing Research. She replaces former director Dr. Ada Sue Hinshaw, who left the institute June 30, to become dean of the School of Nursing, University of Michigan. Hurd comes to NINR from NHLBI, where she will continue in her current position as director, Division of Lung Diseases, until a permanent NINR director is appointed. **Dr. Joseph Jacobs**, director of the Office of Alternative Medicine, has resigned from that position. He has returned to New Haven, Conn., where he is a consultant. Dr. Alan Trachtenberg from the National Institute of Drug Abuse was acting director. Recently, **Dr. Wayne B. Jonas**, a lieutenant colonel in the U. S. Army, who has been director of the Medical Research Fellowship at Walter Reed Army Institute of Research, Washington, D.C., has been named director of the NIH Office of Alternative Medicine ... **Walter L. Jones** has been named Clinical Center deputy director for management and operations. He will be involved in cost containment, introduction of new systems, and in construction and renovation planning ... **Margaret Kerza-Kwiatkowski**, NIAMS's first budget officer, has been appointed executive officer of the institute ... **Dr. Dushanka Kleinman**, deputy director of NIDR, was named acting director of NIDR following the retirement of Dr. Harald Loe. Recently, **Dr. Harold Slavkin**, head of the University of Southern California craniofacial molecular biology department has been named NIDR director ... **Dr. Leamon Lee** has been named director for administration, OD ... **Dr. Pamela Marino** recently joined the staff of NIGMS as a program administrator in the Minority Opportunities in Research Programs Branch. She is responsible for administering research and training grants in the institute's Minority Biomedical Research Support and Minority Access to Research Careers Programs. Prior to coming to NIGMS, Marino was a senior staff fellow in the Laboratory of Mycobacteria at

FDA's Center for Biologics Evaluation and Research. Her research there focused on multidrug-resistant tuberculosis ... **Dr. Gregory J. Morosco** has been appointed NHLBI associate director for prevention, education, and control. He also becomes director of NHLBI's Office of Prevention, Education, and Control and has responsibility for the development, implementation, and evaluation of national disease prevention and health promotion programs to reduce the incidence and magnitude of heart, blood vessel, lung, blood diseases, and sleep disorders, and to improve the utilization and management of blood resources. He was named OPEC's deputy director in 1992, and, since 1993, had served as acting director ... **Dr. Paul Plotz** has been appointed chief of the Arthritis and Rheumatism Branch at NIAMS. He will be the fourth chief of the 40-year-old branch. Prior to the appointment, he was chief of the connective tissue diseases section in the branch ... **Rose E. Pruitt**, formerly with the Department of Labor, where she served as senior equal opportunity specialist in the Office of Federal Contract Compliance Programs, has been named NIDDK's equal employment manager ... **Dr. Louise E. Ramm** has been appointed deputy director of the National Center for Research Resources ... **Dr. Clarice D. Reid** has become director of NHLBI's Division of Blood Diseases and Resources (DBDR), which administers research for transfusion medicine and all blood diseases, including sickle cell disease, hemophilia, thalassemia, and conducts a bone marrow donor program. Reid is a pediatrician with extensive experience in primary patient care, medical education, and research administration ... **Dr. Pamela Gehron Robey**, chief of the skeletal biology section in NIDR's Bone Research Branch, and a biochemist known for her work on connective tissues, has been named chief of the branch ... **Dr. Michael Sesma** recently joined the staff of NIGMS's Office of Scientific Review as a health scientist administrator. He comes to NIH from the department of psychiatry at Washington University School of Medicine in St. Louis ... **Dr. Adolphus Toliver** has been appointed director of the NIGMS Minority Access to Research Careers Program. He comes to NIGMS from the Division of Research Grants, where he served as scientific review administrator for the biochemistry study section since 1975.

RETIREMENTS

Dr. Richard Adamson retired as director of NCI's Division of Cancer Etiology on Aug. 31. He had been director of DCE since 1983, and had been at NCI since 1963. In September 1994, he became vice president for scientific and technical affairs of the National Soft Drink Association, Washington, D.C., where he will be responsible for representing the soft drink industry's scientific and technical issues before the public and government agencies. Dr. Jerry M. Rice, head of Frederick Cancer Research and Development Center, has been named acting director of DCE ... **Dr. Samuel Broder**, director of the National Cancer Institute, announced in December 1994, his intention to retire from Public Health Service duty and take a position with Ivax Corporation, Miami, Fla. NCI director since January 1989, Broder served 22 years in the PHS and plans to leave his post in March. He will become Ivax's senior vice president for research and development, and chief scientific officer. The company makes generic drugs, intravenous drug delivery devices, and personal care goods. Dr. Edward Sondik, acting deputy director of NCI, has been named acting NCI director ... **David L. Chicchirichi**, executive officer since National Institute on Aging's inception in 1975, has retired. He began his career at NIH 33 years ago in the Division of Research Grants and then moved on to the National Institute of Child Health and Human Development as a grants management specialist, administrative officer, and, finally, assistant executive officer. As NIA executive officer, Chicchirichi was principal advisor to top NIA staff on program and administrative management policies. His future plans include everything from writing a book and continuing his hobby of collecting and restoring antiques to collaborating on media productions and a comic strip ... **Eileen Dybvad**, a computer programmer with the management information systems section of the Financial Management and Information Systems Branch, has retired after 20 years of government service, 15 of which were spent in NIAID. She plans to spend more time with her family traveling and visiting ... **Luz Galito** recently ended her 35-year career with the federal government. She had worked as a cytotechnologist in the Laboratory of Pathology, NCI.

Galito plans on spending her retirement enjoying her family at her home in Clinton, Md. Her dream is to travel throughout the United States ... **Mattie Jackson**, chief of the mid- and senior-level recruitment section in NIH's Recruitment and Employee Benefits Branch, has retired after 31 years of federal service, 26 spent at NIH. She plans to travel, take courses in the guidance counseling field and visit with her grandchildren more often ... **Thomas A. Johnson**, deputy executive officer at NIDDK for the past 11 years, has traded in his desk for a fishing boat. He retired recently after 36 years of federal service. In 1967, he joined NIH as a personnel management specialist in the Clinical Center's Personnel Management Branch. He remained at the CC for 16 years, serving as personnel officer, administrative officer, and hospital administrator. He came to NIDDK in 1983 as deputy executive officer. Johnson plans to devote more time to boating and working with the Coast Guard Auxiliary, a group that educates the public about boating safety and safety patrols ... **Dr. Igor Klatzo**, a senior scientist in the NINDS Stroke Branch, recently retired ending a 38-year career of service in the NIH community. He began his NINDS career in 1956 as head of the clinical neuropathology section of the Surgical Neurology Branch. Since then he has held many positions within the institute including chief of the Laboratory of Neuropathology and Neuroanatomical Sciences, and senior scientist and head of the section of cerebrovascular pathophysiology in the Stroke Branch. During his distinguished career, he did extensive work in the areas of blood-brain barrier disruption, edema, and other pathophysiologic mechanisms associated with ischemic or traumatic injury to the brain. Klatzo plans to continue his research interests through collaborative research projects. His immediate retirement plans, however, including traveling to Florida in his newly purchased state-of-the-art mobile home ... **Nat Lindsey**, who was the small and disadvantaged business utilization specialist for research and development programs at NIH's Division of Contracts and Grants, has retired after 35 years of federal service. Since 1964, when Lindsey began at NIH as a nursing assistant with the arthritis institute, his career has crossed from bedside to laboratory to office.

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In retirement, he plans to do some volunteering, traveling and consulting ... **Dr. George R. Martin**, scientific director of the National Institute on Aging, left in October 1994 to become the first employee of a new company in Palo Alto, Calif., conducting research on fibrotic diseases and wound healing. His NIH career began in 1958 when he came to work at the Heart Institute. In 1959, he joined the National Institute of Dental Research and worked there until becoming scientific director of NIA and head of the intramural program. He will continue to live in the Bethesda area while commuting to Palo Alto ... **Dr. Daniel R. Masys**, director of the National Library of Medicine's Lister Hill National Center for Biomedical Communications since 1986, retired from the Public Health Service Commissioned Corps in September to become director of biomedical informatics at the School of Medicine, University of California, San Diego ... **Dr. John A. McLachlan**, whose NIEHS career progressed from research associate to scientific director over the past 21 years, has retired to accept directorship of the Tulane-Xavier Center for Bioenvironmental Research and professor of pharmacology at Tulane University in New Orleans ... **Dr. Charles A. Miller** retired recently after 35 years of government service, 33 of which he spent with the National Institute of General Medical Sciences and its predecessor. At the time of his retirement, he was director of the institute's Cellular and Molecular Basis of Disease Program Branch ... **Dr. Laurence H. Miller**, the first director of an extramural skin diseases program at NIH, recently retired after 30 years of government service. At the time of his retirement, he was a special advisor for skin diseases at NIAMS. He first joined NIH in 1966 as the Dermatology Program director and served in that capacity until 1982, when he became a special advisor to NIAMS. Miller will continue with his active clinical practice in dermatology and his commitment to the voluntary organizations devoted to skin diseases research ... **Gary Payne**, a computer equipment specialist in the Standards and Specifications Branch, OA, retired recently after 33 years in government. He came to NIH in 1968 as a medical equipment repairer in the Biomedical Engineering and Instrumentation Program. He spent 10 years in this position before transferring to

the Standards and Specifications Branch in 1978. Payne has been an avid bowler all of his adult life, and plans to do more bowling after retirement ... **Dr. Ann Schluederberg**, chief of the Virology Branch in NIAID's Division of Microbiology and Infectious Diseases, has retired after 15 years of federal service. She served as branch chief since 1990. Throughout her scientific career, she lived a triple life. She is an amateur artist and musician. During retirement, she will pursue all of her artistic endeavors, sail and travel with her husband ... **Joan Shariat** of OD's Office of Communications recently retired from NIH after 33 years of service. She came full circle by starting and ending her career in the information office ... **Dr. Lawrence Shulman** has retired as director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases. He joined NIH in 1976 as associate director for arthritis, musculoskeletal and skin diseases of the then National Institute of Arthritis, Metabolism, and Digestive Diseases to create and implement the programs recommended by the National Arthritis Act and in the "Arthritis Plan." In 1983 he was appointed director of the Division of Arthritis, Musculoskeletal and Skin Diseases. He was named the institute's first director in January 1987. He plans to stay at the institute in an emeritus capacity to continue his personal research and will work with Dr. Harold Varmus as a senior science advisor. Dr. Michael Lockshin, director of the NIAMS Extramural Program since 1989, has been named acting director ... **Dr. Edward Steers, Jr.**, after 31 years with NIDDK as researcher and deputy director of the Division of Intramural Research, has retired. A prolific writer and researcher on the Civil War era, Steers plans to become a fulltime historian and author.

DEATHS

Steven Adelberg, 43, a biomedical researcher who specialized in molecular cell biology at NCI for the past 15 years, died Oct. 2 at home in Silver Spring. He was part of the team that discovered a gene that may show the link between smoking and lung cancer. The group discovered that a particular gene could produce a protein that turned chemicals contained in cigarette smoke into cancer-causing substances ... **Doralee Agayoff**, NLM senior reference

librarian and an employee of the library for nearly five decades, died on Dec. 28 after a long illness. She entered government service on Apr. 23, 1946, when she joined the staff of the Army Medical Library located in downtown Washington, D. C. In 1962, the library changed its name to NLM and relocated to its present site in Bethesda. Her 48-year career with the library was spent in the collection access section ... **Emma Louise Akers** died July 16 in Gaithersburg. She was the financial management officer in the National Institute of General Medical Sciences ... **Dr. David Axelrod**, 59, died July 4 in Cohoes, New York, of respiratory failure. He was commissioner of health in New York State from 1979 until 1991, when he had to retire because of a severe stroke. As commissioner he was the most influential member of Gov. Cuomo's cabinet. He was responsible for establishing innovative models in hospital regulation, AIDS, and antismoking legislation. He was at NIH in the Laboratory of Biology of Viruses, NIAID, from 1962 to 1965 and then a virologist at NIH from 1965 to 1968 ... **Dorothy L. Barteman**, 78, a retired administrative assistant with the National Cancer Institute, died July 21 at Suburban Hospital after a stroke. She worked for NCI from 1962 until retiring in 1977 ... **John A. Beglin**, a retired accountant who worked for NIH from 1950 to 1969, died June 30, at Johns Hopkins University Hospital. He came to NIH from the PHS Hospital in Baltimore, where he had been a fiscal and budget officer. His first job at NIH was chief accountant for the Financial Management Branch. In 1958, he joined the Management Policy Branch, OD, NIH. He was instrumental in designing the automated payroll for NIH. He served on the steering committee that recommended the direction NIH's data processing functions should take, and prepared the groundwork for the establishment of DCRT, where he worked as a special assistant to the division chief for automatic data processing policy ... **Dr. Edgar Andrew Bering, Jr.**, 77, who was associate director of the National Institute of Neurological Diseases and Blindness and a pediatric neurologist, died Aug. 11 at his summer home in Islesboro, Maine ... **Dr. Le Thi Bich-Thuy**, 42, who worked at NIH as a research fellow in molecular biology in the late 1980's, was murdered outside her home in Rockville on Oct. 3. In January 1993, Thuy joined the

Children's Research Institute at Children's Hospital where she worked on pediatric pulmonary medicine research. She was also on the faculty of the department of pediatrics at George Washington University Medical Center. The murder is still under investigation ... **Clarence E. Black**, 66, a maintenance supervisor at NIH who retired in 1989 after 31 years of federal service, was murdered in Washington, D.C., on Sept. 26. He was a "courtesy driver" who helped people in his neighborhood when they needed a ride for shopping. He was slain while sitting in the driver's seat of his car after dropping off a shopper ... **Rose D. Calisto**, 80, a former nurse at NIH, died Oct. 8, in Silver Spring ... **Dr. Thomas S. Cantrell**, 55, died after a long illness on Apr. 8, 1994. He was an associate professor of chemistry at American University. Cantrell, who spent a year at NIH in 1970, then joined the faculty at American University where he taught organic chemistry at the graduate and undergraduate levels ... **Mary L. Cochran**, 79, who was employed as a stenographer at NIH in the 1950's, died of emphysema Oct. 26 at Holy Cross Hospital ... **Walter Beville Coleman**, 68, a psychiatric social worker who worked at NIMH from 1972 until 1984, died Jan. 2 at Shady Grove Adventist Hospital of complications from diabetes ... **Bessie M. Corbin**, 83, a personnel clerk who worked at NIH from 1950 to 1965, died of a heart attack Sept. 25 at Washington Adventist Hospital ... **Frank Curtis**, 75, who retired as chief transportation officer at NIH after 30 years of federal service, died Oct. 4 in the R. Adam Cowley Shock Trauma Center in Baltimore from injuries received in an auto accident ... **Sara Hibbs Darter**, 83, a grants reviewer at NIH in the 1950's, died of cardiopulmonary arrest Oct. 13 at Suburban Hospital ... **Dr. W. Palmer Dearing**, 89, a former deputy U.S. surgeon general, died Oct. 15 of cancer at Sibley Memorial Hospital. He worked with NIH officials during his tenure ... **Dr. Margaret Edwards**, 79, a pioneer in cancer education who was at NCI from 1965 to 1982, was found dead in her home in Seattle on Sept. 10 ... **Dr. Kenneth F. Finger**, 65, associate vice president for health affairs at the University of Florida Health Science Center, died July 11 at Shands Hospital following coronary bypass surgery. Early in his career from 1957 to 1959, Finger was a guest worker at the National Heart Institute's Laboratory of Chemical Pharmacology.

After leaving NIH, Finger had a distinguished career not only professionally at the University of Florida Health Science Center, but also as an humanitarian and community leader in the south Florida region ... **Dr. Norman F. Gerrie**, 87, a Public Health Service officer who was a dentist, died Oct. 3 of a heart attack at Bethesda Naval Hospital. Gerrie served as chief of the division of dental public health and retired as a grant review official at NICHD ... **Irving Gerring**, a former health science administrator with the Division of Research Grants, died July 26 of kidney failure. He came to NIH in 1947 when he was appointed as a health science administrator in the newly created Division of Research Grants. During his 25 years there, he served as a science administrator and executive secretary to several study sections. Among his study section assignments were the environmental sciences, particularly in the water pollution, air pollution and occupational health areas. Other sections in which he served as executive secretary were parasitology; radiology; public health research involving medical care, nursing and epidemiology; biostatistics and biomathematics; nutrition; and population research. He also served as an executive secretary in the U.S.-Japan Medical Cooperative Research Program. He retired in 1977 ... **Sophia H. Grabinski**, a retired laboratory technician at NIH, died Dec. 24 at her home in Bethesda ... **Dr. Bernard T. Kaufman**, 66, a retired biochemist who was an expert on folic acid, died of cancer Nov. 19 at his home in Potomac. He joined NIH in 1960 and retired in 1993 as chief of the section on nutritional biology in the Laboratory of Cellular and Developmental Biology, NIDDK. His work focused on the functions and enzyme pathway of folic acid. With a colleague, he developed a technique called affinity chromatography to isolate an enzyme, dihydrofolate reductase, that activates folic acid in the body. His later work characterized the structure of this enzyme and the way it behaves in the body ... **John F. Kuster**, 68, who worked for NIH for 40 years, died Oct. 9 in Montgomery General Hospital in Olney ... **Dr. Elliot Liebow**, 69, an anthropologist and sociologist who wrote about the lives of black men in the inner city, died of cancer Sept. 4 at Holy Cross Hospital. He worked for 25 years for NIMH at the mental health study center in Prince George's County and later as chief

of the Center for the Study of Work and Mental Health at NIMH. He retired in 1984 and began research for a book that was published in 1993. "Tell Them Who I Am," focused on women who lived in shelters in the Washington area ... **Dr. Orlando Wesley McBride**, 61, a geneticist who was chief of the cellular regulation section of NCI's Laboratory of Biochemistry, died Aug. 28 at Suburban Hospital after a heart attack. In 1960, he joined the U.S. Public Health Service and began his career as a research scientist at NCI. He was the author of 134 articles on genetics and cell biology ... **Dr. Orsell Montgomery Meredith**, 70, a research administrator specializing in grants review at the National Cancer Institute since 1975, died of pancreatic cancer Sept. 19 at his home in Vienna, Va. ... **Henry A. Miller**, 81, a retired statistical processing clerk with NIH, died Aug. 16 at Shady Grove Adventist Hospital after a stroke. In 1946 he went to work at NIH and retired in 1978 ... **Dr. Guy Newell**, 57, who served as deputy director of the National Cancer Institute from 1973 to 1979, died Nov. 12 after a long illness at a hospital in Houston. After leaving NCI he had worked for the University of Texas M.D. Anderson Cancer Center. A cancer epidemiologist, he was the center's associate vice president for cancer prevention. In the mid-1960's he spent two years at NCI as a research planning associate. He returned to NCI in 1973. At NCI, he served as deputy director and as liaison between NCI and the U.S. Food and Drug Administration for the national study of saccharin as a possible cause of bladder cancer and coordinated NCI's Diet, Nutrition and Cancer program. He also served as acting director of NCI for a 10-month period in 1976-77 ... **Barbara J. Odle**, 41, a contracts clerk in NCI's Contracts Review Branch, died July 11 at Suburban Hospital of a cardiac arrest ... **Dr. Betty A. Peters**, 34, a former research associate in NIDDK's Laboratory of Chemical Biology, died on Sept. 11. She came to NIDDK in 1989 as an intramural research training award fellow. Her laboratory investigations focused on developmental globin gene expression and gene silencing research. In July 1994, she left NIH to continue her clinical training in gastroenterology at Georgetown University and was planning to return to NIDDK next year to begin a gastroenterology fellowship with

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the Digestive Diseases Branch ... **Lillian T. Platt**, 85, a retired grant administrative aide who worked at NIH from 1961 until she retired in 1976, died of cardiorespiratory failure Oct. 6 at Washington Adventist Hospital. She had been a violinist in the Chicago Women's Orchestra and at NIH had served as a concert matron in the NIH employees' symphony ... **Mary K. Povich**, 82, a retired government executive secretary who had lived in the Washington area since 1915, died of pancreatic cancer Jan. 27 at the Washington Hospice. From 1960 to 1975, she worked for the National Institute of Mental Health ... **Charles Estee Sartor, Sr.**, a long-time NINDS employee, died after an accident during a fishing trip. A native of Washington, D.C., he had retired from the federal government in September with more than 36 years of service. For almost 30 years, Sartor worked in the Surgical Neurology Branch where he held a variety of positions including operating room technician in the Clinical Center and laboratory technician specializing in animal surgery in Bldg. 9. In 1989, he became a photo lab technician in the NINDS Electron Microscopy Facility, a position he held until his retirement ... **Dr. Julius Segal**, 69, a psychologist and author who was director of the Office of Scientific Information at the National Institute of Mental Health for 12 years, died of cancer on Sept. 26 at his home in Bethesda. He was an expert on the trauma faced by prisoners of war and hostages. In 1959, he joined NIMH as chief of program analysis and then became the information director in 1974 and retired in 1986. Following his retirement, he continued to write and research and taught at the University of Maryland and Montgomery College ... **Dr. Richard Barton Simpson**, 75, a retired physical chemist at NIH who specialized in hemoglobin and other macromolecules, died of cancer Oct. 11 at his home in Bethesda. In 1952, he joined NIH and worked at the National Institute of Arthritis, Metabolism and Digestive Diseases. He retired in 1984 ... **Pauline B. Spaulding**, 78, who worked for the government 32 years before retiring in 1974 as a social science analyst with NIMH, died of a heart ailment June 25 at Arcola nursing home in Silver Spring ... **Dr. William A. Thompson, Jr.**, 55, a psychiatrist who was killed when his single-engine plane crashed Sept. 17 after hitting a power line near

Barstow, Md., was on the staff of the Lorton Correctional Complex. He served in the Public Health Service at NIH in the 1970's ... **Dr. Frank H. Tyler**, 78, one of the founding fathers of the University of Utah School of Medicine, died Sept. 7 of pancreatic cancer. A world-renowned specialist in endocrine and metabolic disorders, especially muscular dystrophy and other neuromuscular diseases, he was chief clinician on the first extramural research awarded to a university by NIH. Funding for the study of metabolic and hereditary disorders began in 1946 and was renewed annually for 33 years ... **Dr. George Zur Williams**,



Dr. George Zur Williams, founder and first chief of the CC Clinical Pathology Department, died Nov. 22.

87, founder and first chief of the Clinical Center's Clinical Pathology Department in the early 1950's, died Nov. 22 at his home in Tiburon, Calif., after a short illness. He came to NIH in 1953 to plan and establish the research in the newly built CC. His goal was to put into place a lab with the highest accuracy, precision and sensitivity. He also initiated the development, control, and automation of laboratory technology. The lab set the national standards for computerization and automation in the lab setting. His personal research focused on cancer cytology. His lab developed and tested the first method of apheresis for separation of white blood cells for treating leukemia. After leaving NIH in 1969, Williams moved to San Francisco where he established a

new institute of health research in the Medical Research Institute of the Pacific Medical Center ... **Dr. Ralph W. G. Wyckoff**, 97, a research scientist who worked in electron microscopy and crystallography, died Nov. 3 of bone cancer at a nursing home in Tucson, Ariz. He came to NIH in 1945 as chief of the section of molecular biophysics. At the annual meeting of the American Association for the Advancement of Science in Cleveland in 1950, Wyckoff introduced a new world of living matter revealed for the first time by the electron microscope, displaying photographs of viruses and molecular particles two-tenths of a millionth of a centimeter. While at NIH, Wyckoff was primarily concerned with investigations of the whole structure of cells and intracellular organisms, and with the fine structure of material composing cells. His many research achievements included the development of methods for photographing the exact arrangement of molecular particles in cell crystals, thus confirming geometrical theories of structure. In 1959, he left NIH to become professor of bacteriology and physics at the University of Arizona ... **Dorothy Hays Woods**, 81, a management analyst who retired in 1976 after 18 years at NIH, died June 30 at Fairfax Hospital. She had Parkinson's disease ... **Dr. J. Franklin Yeager**, 95, who retired in 1966 as associate director of extramural programs at the National Heart Institute, died of a heart aneurysm Jan. 11 at his home in Houston. In 1948, Yeager began at the heart institute as executive secretary in the research branch of the hematology and physiology section. He was one of the key figures in the development of the institute's research and training grants programs.

The NIH Alumni Association recently received contributions in memory of Drs. Ralph Knutti, Brigid Leventhal, James A. Shannon and Sheldon M. Wolff.

A Tribute to Mary Woodard Lasker

By Terry Lierman

Editor's note: On Feb. 21, 1994, Mary Woodard Lasker died. She was a member and supporter of the NIH Alumni Association. Terry Lierman, a member of the NIHAA board of directors, gave the following tribute to Mrs. Lasker at the NET's 25th anniversary celebration.

Sen. Warren Magnuson, my first mentor, introduced me to Mary Lasker, and it was love at first sight. Mary was born in Watertown, Wisconsin, in 1900. I was born 30 miles from there but a little later. She went to the University of Wisconsin, my alma mater. She helped to launch the modern NIH, site of my first job. She worked the halls of Congress, and they are where I worked, too. Literally up to the day of her death, Mary urged more effort and faster progress in medical research. She had a wonderful sense of urgency; she understood that people were dying and suffering.

Her last passion was the Harkin/Hatfield Research Fund for Medical Research. In her last telephone call to me, she spoke in a whisper, but urgency—like always—came through: How was it going? What were the chances? What could she do to help?

At NIH sits a beautiful building named the "Mary Woodard Lasker Center for Health Research and Education." When I first told her that Sen. Kennedy and Hatfield, Speaker O'Neill, and Chairman Pepper were naming this facility in her honor, she initially became angry. She said that she did not deserve the credit, that the Congress deserved the credit. Over her protest the Lasker Center was created, and she was very, very proud of it. She even purchased pictures for the inside and worried that the outside wouldn't have

enough flowers. Go there and walk through the interior gardens, and you will feel the inspiration of Mary, who loved the beauty of flowers as a manifestation of her love for life. To that end, she also has 10,000 azaleas planted in Washington, D.C.; 900 cherry trees around the Tidal Basin; and one million daffodils planted in Rock Creek Park. She also created many other gardens and, with Lady Bird Johnson, sponsored hundreds of planting projects along our nation's highways.



Mary Lasker influenced her husband Albert, who in the early 1940's controlled massive amounts of advertising on radio, to get CBS to say the taboo word "cancer" on a program called "Fibber McGee and Molly." This led to a flood of mail sent to a fledgling group called the American Cancer Society (ACS), and Mary hired people to open the mail and count the checks. So many arrived that the ACS was propelled to national prominence. She would later use a similar technique with Eppie Lederer/Ann Landers to get the National Cancer Act passed over the initial objections of President Nixon. Full page ads in major newspapers with four-inch bold type said simply: MR. NIXON YOU CAN CURE CANCER.

Mary Lasker was very much involved in a list of medical research accomplishments. In 1948 she established the Lasker Awards, which recognize basic and clinical research and public service. Fifty-two Lasker winners have gone on to win Nobel Prizes. She was very frustrated with scientists who did not want to involve themselves in politics and thought that medical research funding would happen automatically because it was the right thing

to do. Mary would say, "As a citizen, it's my money, so I have a right to help determine how it is spent." She was a model citizen. Like Alexis de Tocqueville, Mary understood that democracy does not work unless citizens make it work. Mary viewed advocacy for medical research as a right of the public, and she exercised it with a passion.

As can other rare people with vision, Mary could always look farther than she could see. She was often heard to say, "I am opposed to heart attacks, and cancer, and strokes the way I am opposed to sin." Her vision firmed her resolve in persuading others to find the cause of disease, not just to treat the symptoms. In the only speech I ever heard her give—because she shunned the limelight—she voiced hope that "the fruits of our labors throughout the years will alleviate pain where there is suffering and will provide the freedom to live in health so that we can fulfill our promise, pursue happiness, and provide hope where none existed before."

Her life will be judged not by her wealth or her love for beauty, but by the beauty and wealth that she instilled in every life she touched through medical research. Those of us who have met her, have seen her beauty and have been touched by her life will revel in her memory and be driven by her passion. The fruits of Mary Lasker's efforts and commitment to improve humankind are all around us. They live in each of us, so they truly will be timeless. Our efforts to cure disease and conquer disability will be judged by Mary's standards, which have been engraved in our minds and hearts. Our nation owes much gratitude to Mary Woodard Lasker—a woman whose mind rebelled against needless suffering and whose heart responded to a worthy cause. Her legacy is a living vibrant message of hope to millions afflicted with disease and disability.

In Memoriam: James A. Shannon, 1904-1994

The following quotes are taken from the series of eulogies delivered by associates and family at a memorial service in honor of Dr. James A. Shannon held on Sept. 23, 1994, in Wilson Hall, Shannon Bldg.

"Although we never met, Jim Shannon had a powerful effect on my life. He created the intellectual environment in which I learned to be a scientist, and he stimulated the adolescent growth of the mature organization I am trying to run. Two months after I arrived here as a clinical associate in 1968, he retired as director of NIH, after thirteen years and one month of service. And a few months after I became director in November 1993, he died at the age of 89. Nevertheless, chance recently brought us together in an unusual way."

Varmus then quoted from an interview conducted with Shannon on Dec. 18, 1965, (Varmus's 26th birthday) by Daniel Greenberg, now editor of *Science and Government Report*.

On the response of academic investigators to the growth of NIH in the mid-50's:

"By this time you had a Heart Institute, you had a Mental Health Institute and a Dental Institute and Cancer Institute. And the specter of targeted programs of a high developmental nature scared the bejeebers out of the universities There was the concern that if federal funds were available by a political process, towards certain specified end objectives, that it would be impossible to develop a program that was truly in support of academic science ..."

On the need for doing basic science in the name of disease-oriented research or technical applications:

"We're very frank in discussing this with the Congress. And this is why I say I'm on very firm ground if I object to the development of an artificial

heart. The technical base isn't there. It's possible to quote chapter and verse as to the deficiencies ...there must be a very broad understanding of the life sciences out of which will come knowledge that warrants development..."

Finally, after ten years as director, on the attitude of scientists towards their sources of funding:

"Scientists in general are interested in what they do in their laboratories; as long as somebody supports them, they don't really care who, so long as support comes to them, in the terms and conditions to satisfy them. They take it as a right and privilege to be supported, and it's somebody else's problem."

Dr. Harold Varmus
NIH director

"The Shannon era began in 1949 when he was recruited to create the intramural research program of the brand-new National Heart Institute. Within three years he was placed in charge of all intramural research at NIH. When he was elevated to director in 1955, one of his first tasks was to cope with a move to sever intramural from extramural NIH. As this threat was overcome he then found himself at the headwaters of a flood of federal funds and ambitions for health science generated mainly by the Congress. He wisely and skillfully directed the flow to create a system for conduct and support of biomedical science that became the envy of the world. Every American university and most nonprofit research institutions benefitted and many were structurally transformed during this

period. At the same time intramural NIH received the indelible mark of Shannon's craftsmanship in placing a government laboratory in the main stream of academic science, permitting unfettered intellectual endeavor to serve high public purposes."

Dr. Donald S. Fredrickson
Former NIH director

"I have limited myself to Jim's contributions before coming to NIH. However, I cannot close without saying how much of a debt I owe to Jim for teaching me a great deal about how research should be done. Even more we all owe Jim a great debt for making American biomedical research what it is today in providing opportunities for so many to make what contributions their ability makes possible."

Dr. Robert Berliner
First NIH deputy director for science and intramural scientist

"Dr. Shannon died just a little more than a quarter of a century after retiring as NIH director. Contrary to Shakespeare's insight, eloquently voiced in Mark Anthony's stirring eulogy of Julius Caesar, the good that Shannon did will not be interred with his bones but will be celebrated as long as historians explore and record the origins of modern biology and medicine. His unshakable faith in the power of science to transform medicine into an instrument of inexhaustible potential for improving human health and for

eliminating disease, disability and premature death, coupled with his acute insight that only the federal government had pockets deep enough to make his faith a reality led him to jettison a lucrative and exciting position in industry and to accept a modest offer of federal employment. Once ensconced, he set about the task of bending the federal government to his persuasion with extraordinary skill, dedication, single-mindedness and, above all else, success."

Dr. Thomas J. Kennedy, Jr.
President, NIH Alumni
Association

Dr. Sidney Udenfriend described how Shannon influenced his early career by dropping into his laboratory and suggesting research that set him on a lifelong pursuit. At the end of his

tribute, he read a letter from Dr. Julius Axelrod who was unable to attend the memorial service. Axelrod recalled that after a dinner in New York for the Weizmann Institute, Bernhard Witkop, Axelrod and Udenfriend were reminiscing about the early days at NIH and how it grew into such a great institution. "We agreed that it was the vision of Dr. Shannon that was mainly responsible for making NIH one of the great biomedical institutions in the world. We all owed him a debt of gratitude. We also thought that the memory of Dr. Shannon and what he accomplished was slipping away and something should be done about it. We agreed that a building on the NIH campus named for him would be a proper memorial. We then discussed this with Jim Wyngaarden, then NIH director, and he agreed that it was a good idea.

Soon after that Bldg. I was named 'The James A. Shannon Building.'"

"Over the twenty years that I spent with him since he left NIH and he came out to the west coast to live near me, two things that he considered to be the most important in his life were the fact that (1) he met my mother and (2) that he had the opportunity to come to NIH at a time when he clearly needed it and it needed him. He had a great deal of appreciation for all the people who worked 'with him'—I don't think that he ever used the words 'for him'—it was worked 'with him,' to bring what he wanted to happen to the medical environment of the United States."

Dr. Alice Shannon-Stolzberg
Daughter of Dr. Shannon



The NIH director's staff in March 1968—around the table are (from l) Dr. James A. Shannon, Dr. G. Burroughs Mider, Richard Seggel, Joseph Murtaugh, Dr. Eugene A. Confrey, Dr. Stuart Sessoms, Dr. Jack Masur, Dr. Robert Q. Marston and Dr. John Sherman.

Call to Arms (continued from p. 5)

(e.g., personnel management, procurement, etc.) is possible, the whole exercise seems otherwise to be the application of a drastic solution to an almost non-existent problem. As a result, an exceptionally fine research endeavor is in the process of being seriously compromised, apparently almost mindlessly, capriciously and incidentally, as a result of having become entrapped in an irresistible set of forces and dicta designed to correct problems that do not characterize intramural research or the scientific administration of extramural research.

In my view, the overarching concepts within which the problems raised for NIH by reinvention must be framed are that:

- A vast array of difficult to intractable problems, inimicable to human health—some known, others waiting in ambush—will, in the normal course of events, continue to take a tragic toll on existing populations and on future generations.

- The only way to ameliorate these fateful inevitabilities is research, a process that is difficult, intellectually demanding, often slow in achieving results, replete with enticing lures that end in blind alleys, and costly. Unfortunately, it is also the only imaginable and historically proven route to the improvement of human health.

The times and circumstances may argue that the rate of growth of research investments be slowed, but it should never be cut, as is happening now! Worse, the best is being cut first. My message, as you must surely have guessed by now, is to urge you not to sit idly by but to protest—to your congressional delegation, to the President and the Vice President, to the Secretary, DIIHS, to the directors of the OMB (Dr. Alice Rivlin) and of the OSTP (Dr. John H. Gibbons). Encour-

age the leadership of your institutions and the officers of your scientific societies to join in protest to the wanton and senseless destruction of a magnificent biomedical research institution.

Wherever well informed people may stand on the political spectrum, whether they be true believers in the power of government to solve societal problems or confirmed skeptics committed to severe limitation on the role of government in human affairs, whether they be conservative Republicans or liberal Democrats, whether they base their views on scientific knowledge and experience or on the educated judgments of enlightened citizens, there is one conviction from which there is virtually no dissent: NIH, intramurally and extramurally, is one creation of government in which every American can take immense pride.

Intramural NIH Science: A Quality Enterprise

My assertion that intramural NIH is top notch is not just the chauvinism of a superannuated alumnus; it is a reality beyond cavil or dispute. Let me cite only two lines of evidence based on as objective measures of quality as are available: membership in the most prestigious and selective society that honors scientific achievement in the United States, the National Academy of Sciences (NAS); and bibliometric data, reflecting the acknowledgement that scientists accord predecessor scientists by citing earlier publications as the groundwork that facilitated discovery of the advances they themselves are currently reporting in new publications.

First, the distribution of NAS memberships among universities, government agencies, industrial organizations and other entities:

- As of July 1, 1994, 1,702 of the academy's members were active, 82

were emeritus and 298 were foreign associates. Membership is overwhelmingly academic, with very modest representation from independent research institutes, government science agencies and industry. NIH, with 51 members, ranks 7th in the country, trailing only Harvard (142, if the Harvard-Smithsonian Center for Astrophysics is included), the University of California at Berkeley (110), Stanford (106), MIT (99), the California Institute of Technology (60) and Yale (56). NIH, of course, is a biomedical research institution; there are many fields of physical, mathematical, agricultural, social and political science that are almost entirely outside its ambit of concern, mission and responsibility, and which are not represented on its staff, except incidentally. Table 1¹ shows that in the subset of sciences central to NIH's mission, its rank order is considerably better than 7th. The edge enjoyed by NIH over most of the very distinguished academic institutions ranking below it in total membership—the University of California at San Diego and the University of Chicago (45), Princeton (43), Cornell (38), the University of Wisconsin (35), the University of Pennsylvania (33), the University of Washington (31), the University of Illinois (28), Columbia University and the University of California at Los Angeles (27), the Rockefeller University and the Bell Laboratories, (24), Johns Hopkins University (19), the University of Michigan (17), the University of Minnesota (16), Duke University and

¹The distribution of members, by section, from the several institutions in this table was obtained by a tedious hand-sort, comparing two divisions of the NAS's Members Directory. In a few instances, the totals for an institution differ from the actual totals by 1 or 2. These tabulating errors, in my opinion, do not invalidate the conclusions.

the University of California at San Francisco (15), New York University and Washington University (14), and the University of Texas, Southwestern (11)—would be even more impressive were the comparison to be based solely on the number of members from the biological and medical sciences. The number of staff members elected to the NAS from NIH exceeds the total (20) from all other federal agencies²: the Dept. of Veterans Affairs, 3; the NIST,

2; the Naval Research Laboratory, 4; the USDA, 2; the U.S. Geological Survey, 4; U.S. Naval Postgraduate School, the NOAA, the DHHS, the Council of Economic Advisors and the

²The 21 NAS members from FFRDCs (Federally Funded Research and Development Centers) —Argonne, Brookhaven, Fermilab, Jet Propulsion, Lawrence-Livermore, Lincoln, Oak Ridge, National Radio Astronomy and Sandia — have been excluded from this enumeration, since they are not federal employees.

U.S. Forest Service, 1 each. In fairness, it should be noted that there are 45 members of the National Academy of Engineering (NAE) from the federal agencies³: Agriculture, 3; Commerce, including NIST, 7; Defense, 1; Army, 5; Air Force, 2; Navy, 5; Educ., 1; Energy, 5; Interior, 2; EPA, 1; OSTP, 1;

(Continued on p. 34)

³ Again, the 30 members of the NAE from the FFRDCs have been excluded, for reasons I believe proper.

Table I
NATIONAL ACADEMY OF SCIENCES MEMBERSHIP
BY SECTION AND INSTITUTION

FIELDS OF SCIENCE	Harvard	U. C. Berkeley	Stanford	M. I. T.	Cal. Inst. Technol.	Yale	N. I. H.
Mathematical and Physical Sciences (Section 11-15)	47	49	33	40	38	18	2
Applied Physical and Engineering Sciences (Section 31-33)	12	12	20	18	8	2	0
Anthropology and Psychology (Section 51-52)	8	11	10	5	0	9	2
Social, Political, and Economic Sciences (Section 53-54)	16	7	9	5	1	4	1
Applied Biological and Agricultural Sciences (Section 61-62)	2	5	0	3	8	0	0
SUBTOTAL: Non-Biological Sciences	79	64	72	71	47	33	5
Biological Sciences (Section 21-27)	44	24	29	20	13	10	22
Medical Sciences (Section 41-43)	21	2	4	5	0	5	23
SUBTOTAL: Biomedical Sciences	63	26	33	25	13	15	45
TOTAL	144	110	105	96	60	56	50

(Continued from p. 33)

and NASA, 12.

• NIH has had, for the most part, to home-grow its NAS members. By the time outsiders have attained the distinction that warrants election to the academy, they are usually well beyond NIH's price range for salary, benefits and "perks". NIH has only infrequently been able to recruit mid-career and senior scientists of NAS calibre from the outside; notable recent examples are Francis Collins and Harold Varmus. On the other hand, many outstanding young, mid-career and senior NIH scientists, who either have been, or are about to be, elected to the academy, have been recruited to academic institutions or industry and are liberally represented in the latter's delegations of NAS members.

Over the last 30 years, the value of bibliometric evidence for measuring the quality of science has become well established, its limitations recognized and defined and the high degree of correlation between it and peer judgement demonstrated. What does it have to say about intramural NIH?

• The most recent sophisticated study, commissioned—and substantially incorporated into its final report—by the Institute of Medicine committee to study strategies to strengthen the scientific excellence of the National Institutes of Health Intramural Research Program, chaired by Harold Shapiro, the president of Princeton University, was prepared by Dr. Helen H. Gee in 1988. The Gee study included papers published from 1973 to 1984 in a set of basic and clinical science journals, recognized to be central to biomedical research by the Science Citation Index, the NLM, NIH and the NSF and authored either by the sector of intramural scientists or by the sector of authors who indicated a university or a medical school as their base of opera-

tions. Her analysis compared trends, over the epoch, in measures such as the total number of publications, the "presence" of each sector of authors in the arena under consideration, the number of citations per paper, the average influence per paper—a weighting adjustment reflecting citation patterns and practices in specific fields—and the percentage of papers from the sector that appeared in the decile of most frequently cited papers. Comparisons were made for: two large aggregate fields, clinical medicine and biomedical research; 44 subfields; and a broad class, "general biomedical research,"

defined as papers of the ilk traditionally published in journals such as *Science*, *Nature*, *PNAS*, etc. Gee outlines the patterns of change—growth or stability or decline in publications, citations or influence, by field—that have occurred over the epoch. Despite the ups and downs described in the Gee analysis, the IOM committee—relying mostly on this data—concluded that "*the intramural program, overall, demonstrated a high level of performance when compared to the general academic community.*"

But to me, the startling observation was that, in the three periods of time

Table II

NIH INTRAMURAL PROGRAMS & U. S. COLLEGES AND UNIVERSITIES PUBLICATION RECORDS 1973-1984

Research Area	No. Papers	% U. S. Papers in Subj.	Citations Per Paper	C.P.P. Intra Extra	% Papers Among Top 10%	Avg. Influence
CLINICAL MEDICINE						
Intramural NIH						
1973-76	4258	3.2	33.4	1.9	24.1	32.2
1977-80	5396	3.2	21.8	1.9	23.4	30.2
1981-84	5770	3.0	10.6	2.0	24.9	30.2
Univ/Med Schools						
1973-76	86958	64.8	17.5		10.3	20.3
1977-80	112174	66.4	11.7		10.2	19.3
1981-84	129893	68.4	5.3		10.2	18.1
BIOMEDICAL RESEARCH						
Intramural NIH						
1973-76	2729	4.4	39.4	1.5	19.1	63.5
1977-80	3637	4.7	29.6	1.6	18.9	62.5
1981-84	3822	4.4	16.1	1.8	21.6	62.1
Univ/Med Schools						
1973-76	50379	77.0	26.0		10.0	47.7
1977-80	59420	77.5	18.6		9.7	47.5
1981-84	66473	77.4	8.8		10.0	45.7

studied, for the broad fields and for almost every subfield, the comparisons of the average influence of intramural vs. academic papers, and/or of the number of citations per intramural vs. per academic paper, and/or of the percentage of intramural vs. academic papers in the top decile indicated that the intramural sector consistently exceeded academic by a 40 - 90 percent margin (Table II).

Can it be argued that NIH superiority in this data set is due to the fact that the universe to which it is compared is so large and heterogeneous as to obscure the stature of distinguished academic institutions? I think not. For research to be conducted and published it must first be funded. Most academic biomedical research is funded—after rigorous peer review in a ferally competitive atmosphere—by NIH extramural programs; and most NIH money ends up in a relatively small number of research-intensive universities and medical schools. Thus, the Gee study has compared intramural research principally with the best of academic research and shown that intramural generally stood head and shoulders over its competitors through 1984. As of that date, intramural NIH was not just good. It was, arguably, the best.

• What has the record been since 1984? Nothing as elegant as the Gee study has been published but occasional reports out of the Institute for Scientific Information's *Science Watch* have appeared. The March 1994 issue reported that:

•• From 1981 to 1993, the 5-year average ratio of actual to expected citations for NIH papers, for all institutes in the aggregate, fluctuated from 29.69 percent above world average for the period 1981-85, to 31.05 percent (1984-88), 30.99 percent (1985-89), 30.12 percent (1986-90),

29.83 percent (1987-91), 25.89 percent (1988-92), and 26.09 (1989-93);

•• Over the same epoch, the citation impact of NIH papers, relative to the U.S. biomedicine baseline, rose from 85.22 percent above the baseline to 88.05 percent above in 1985-89, and then fell to 75.00 percent above in 1989-93;

•• Intramural papers, though they make up only 2-3 percent of the total, constituted about 15 percent of the 300 most frequently cited papers, worldwide, each year from 1983-87 and about 10 percent from 1988-93 (in a much larger pool);

•• Of the 30 papers most frequently cited each year from 1981 to 1993 from the world literature, an average of 5 (range: 2-10) were from intramural research;

•• Of the 10 most frequently cited, an average of 1.6 (range: 0-3) were from intramural research.

Why *Science Watch* emphasizes that intramural NIH is "slipping" is puzzling, in the face of the fact that the changes in the degree of dominance over the epoch examined are not consistently unidirectional and the sheer increase in the denominator of research establishments, industrial and foreign, tend inevitably to reduce the relative dominance of the intramural effort. It still looks like "The Champ" to me.

On these two lines of evidence alone—NAS membership and bibliometrics—and without recourse to scads of additional supporting data—on Nobel, Lasker and other awards, on leadership positions held and discharged with distinction in hundreds of scientific societies, on the outstanding contributions made by NIH-trained post-doctoral students as well as by for-

mer NIH-employed scientists to the intellectual life of the nation's scientific community through service on faculties of top notch academic institutions and on staffs of leading industrial organizations—I rest my assertion that NIH is the finest biomedical research organization the world has ever seen. If some think this be hyperbole, let them present the data to support their assertion.

Creative Management: the Hallmark of NIH

Perhaps the most extraordinary achievement—managerial, not scientific—of intramural NIH is to have been able, for almost half a century, to systematically and continuously overcome barriers to the attainment of excellence, barriers that are virtually nonexistent in private, non-government organizations and institutions but inescapably associated with in-house government operations. Government salaries and fringes are as a rule significantly below those in academic settings for comparable positions; the highest possible annual salary NIH can pay—and that to only a very, very few, with many years of service—is under \$150,000. Government personnel systems were designed to serve traditional government functions and to prevent politicization of public sector employment, not for recruiting, promoting, and retaining scientists. For example, permanent civil service status, embodying extraordinary assurances against dismissal, comes automatically and early, usually after one year of satisfactory service; postponing it, to permit more confident assessments of the creativity of candidate scientists, does violence to the most sacred canons of civil service personnel policy. The authority possessed by NIH for many years to designate selected young scientists as in "tenure tracks" and to

(Continued on p. 36)

(Continued from p. 35)

defer tenure status long enough to allow thorough appraisal, exists, to the best of my knowledge, nowhere else in all government and stands as tangible proof of herculean and successful efforts to adapt government personnel policies to serve the ruthless insistence that the culture of science places upon professional excellence. In government, "disposal" mechanisms for scientists deserted by their muse are few and winnowing "dead wood" is probably much more difficult than is the case in academe. Government procurement regulations, designed to minimize favoritism in the expenditure of public funds, can complicate and delay purchases of scientific instruments, supplies and equipment. At one time or another, mostly in the past, NIH employees have encountered problems with: the receipt of outside income of the sorts regularly earned by academicians; with participation in the morally obligatory duties that attend membership in scientific and professional societies, e.g., holding office, editing scientific journals, etc.; and with travel, particularly abroad, to scientific meetings. Retirement benefits are non-portable. A mid-career NIH scientist cannot take accrued retirement benefits to an academic or industrial position without serious financial penalty and, therefore, tends to be frozen in situ even when a move might be beneficial to the individual, to NIH, to the organization recruiting the employee, to science, and to the public good. Similarly, the necessity for a mid-career academic or industrial scientist to switch to a new retirement system upon entering government service has until very recently been a severe deterrent to hiring scientists from the outside; the Senior Biomedical Research Service, authorized for NIH in 1991, and recently implemented should provide some relief for this

problem.

For NIH to have reached its present level of excellence and to have maintained it for at least four decades in the face of obstacles such as those cited is both an astonishing feat and an enormous tribute to the institution's enduring capacity for creative management.

A "Call to Arms" for All Who Value Biomedical Research

In issuing this "call to arms," I recognize that the response of the extramural community is not likely, at least initially, to be instant or enthusiastic. Sympathy for the plight of NIH intramural research is not, in my experience, a sentiment universally prevalent "out there." This seems to me to be regrettable, misguided, and potentially dangerous to the nation's biomedical research enterprise. What the two sectors share in common is far greater and more important than the differences between them and both are likely to prosper more if mutual respect, understanding and support characterize their relationships. Among the misperceptions of intramural NIH that I have encountered in the extramural community, several warrant mention.

One concept is that the only really suitable site for basic research is academe. The logical consequences of this persuasion are detectable in every one of the many external examinations of the intramural research program that has ever been undertaken, usually articulated as a recommendation that intramural NIH focus its energies on some mission or expand into some empty niche (e.g., "long-range research" or "high-risk research") that is different from that traditionally conducted in academic institutions but peculiarly appropriate to its unique institutional form as a government research labora-

tory. The fact is that, in general, intramural NIH conducts—with notable success—precisely the same types of research performed in academe, in other non-government non-academic institutions, and, to some extent, in industry. Given the workplace environment that inevitably keeps their employer's categorical missions "front and center," intramural scientists may be more keenly aware of, and more responsive to, the health goals of the agency. But basically, the nature of most of the science pursued is identical, whether conducted in academe or in Bethesda. Many world class scientists simply prefer to devote themselves to full-time research in a government laboratory, free of routine undergraduate and graduate student teaching responsibilities and of the need to apply periodically and competitively for research grant support, even if the trade-off for this life-style requires putting up with certain inconveniences and sacrifices inherent in federal government employment.

Another idea I've heard articulated by academicians is that, were intramural NIH to be abolished, the money expended for Bethesda activities would wind up in the extramural community. This is probably illusory. Firstly, there can be no assurance, at least in these politically turbulent times, that the savings accruing from downsizing or even abolishing intramural NIH would remain in research (vis-a-vis being dedicated to debt reduction, middle class tax relief, Medicaid, crime prevention, etc.). But whether or not the total resources available for research were to shrink, abolition of intramural NIH would indubitably drive many of its first class investigators to academia, where they would almost certainly compete successfully for funds appropriated for extramural research; in fact,

they might be competitive enough to take funds away from established academic grantees. The mid-level and senior scientists of my acquaintance that have left NIH in the last decade are not only surviving but thriving in academe and industry. The proposition that the research resources available to the current denizens of the academic community would be improved by the dissolution or constriction of intramural NIH strikes me as an extremely tenuous proposition.

A not infrequently heard recommendation that intramural research expenditures be capped at their current share, 11.3 percent, of the total NIH appropriation is also problematic. Perhaps it makes sense to cap the Bethesda effort, for the simple reason that the Bethesda site cannot comfortably accommodate many more people. But the validity of the proposition that intramural research, *qua* intramural research, should be "capped," relative to extramural, is not *a priori* compelling, nor are the criteria that should determine the distribution of appropriated funds between the two sectors. One assumption from which any discussion of this issue admittedly cannot prescind is that federal funds should be expended only on the highest possible quality research. Currently, most federally conducted and sponsored research is of high quality, wherever performed; and all would be, were not fallible human judgment the only possible basis for allocating resources. But that having been stated, the day may come when the question arises of whether the return on federal research investments is greater in the public (intramural) or the private (extramural) sector. The answer to that question, admittedly complex and a formidable measurement challenge, is also not immediately or intuitively obvious. In-house government research is demonstrably of very high quality; it

must also, on the whole, be less costly since personnel costs—which represent about 70 percent of the expenses of research projects in the biomedical sciences—are held down in government laboratories to levels considerably below those prevailing for comparable talent in academic institutions. Exactly what a sophisticated and well designed study of the comparative return on investments made on intra- vs extramural research would conclude is not, to my mind, predictable. But should it turn out—as it well might—that the government realized a "bigger bang for its buck" intramurally, policy makers would have to give serious consideration to expansion of intramural research, possibly with funds derived from extramural, preferably at some other site removed from an already overcrowded Bethesda campus.

The excellence of NIH-supported extramural scientific research programs—be they project and center grants, or training, fellowship, and career development awards, or contract programs—is also victim of "reinvention," as currently applied. The decimation, three times over, of the "study sections" that have played so crucial a role in the impartial evaluation of research proposals will almost certainly compromise the quality of that process and probably force radical changes in the review and approval mechanisms for grant applications and contract proposals. The more than decimation of the extramural scientific and professional staffs of the DRG and the institutes will: further reduce the capability of the review and approval machinery to select the most promising applicants for funding, thereby destroying the process that, above all else, has made American science peerless for half a century; and will cripple the capability of NIH to manage awards with the rigor that the public expects as well as

with the empathy and intellectual sensitivity that the dynamics of the scientific research process necessitate.

I therefore appeal to those of you in the extramural community to rethink the reservations that some of you may harbor about intramural research and recognize that unless the two major segments of the U.S. biomedical research community hang together—as logic and reason commend—they are likely to hang apart. The processes presently entrained at NIH will inexorably cripple the institution. The effect of position cuts that impact most severely on the intellectual and creative leadership of the organization will almost inevitably cause the current extraordinary excellence to deteriorate. The "brightest and best," with the most attractive options will leave and their "draw" that, in the past, attracted promising youngsters will no longer be around. It is not only the absolute extent of personnel cuts that is destructive; the devastation they will wreak is potentiated by their prescribed distribution by grade level. We are now silent witnesses to what I can only call a catastrophe: not the dismemberment of just another government agency but the ruin of a national treasure.

In my opinion, it would be irresponsible for the biomedical scientists of this country, and their entourage of associates, supporters, advocates, and admirers, to permit this tragedy to continue to unravel without vigorous protest. As this process proceeds, the biggest loser will be the American public and all humanity, whose deliverance from disease, disability and premature death is critically dependent on the persistent and sophisticated efforts to unravel nature's secrets by world class scientists.

Aux armes!

NIH Retrospectives



Spring 1955

Dr. Lewis R. Thompson, NIH director from 1937 to 1942, died in Baltimore on Nov. 14, 1954 at the age of 71. A career officer of 36 years service, Thomas was chief of the PHS Bureau of State Services when he retired in 1946 ... New official names were recently given to all NIH roadways to help visitors and postmen locate buildings on the reservation. As a general principle, all roads were given names based either on their function or geographical location on the NIH site plan. The original entrance road to NIH was designated Wilson Drive, in honor of Mr. and Mrs. Luke I.

Wilson who gave tracts of land on which NIH was built. The road running from the original research buildings to the Clinical Center is called Memorial Road, since it services the Memorial Laboratory (Bldg. 7), which was named in honor of the 27 PHS workers who died in line of duty ... NIH plans to add 500 parking spaces in six areas on the reservation. A recent survey showed that over 1,860 cars now park daily at NIH



Spring 1965

According to a recent report the most common accidents at NIH are ordinary slips and falls. NIH personnel took 200 tumbles and spills during 1964 ...

Medical and health-related research will account for seven cents for each dollar the federal government will provide for research and development in FY 1965, according to a recent Public Health Service publication ... Mary J. Craig is the first woman architect to join the Division of Research Facilities and Resources staff.



Spring 1975

Dr. Frank J. Rauscher, Jr., NCI director, announced the establishment of the Division of Cancer Control and Rehabilitation with Dr. Diane J. Fink named as director ... The Ad Hoc Committee met to discuss plans for the NIH First Alumni Reunion to be held on campus, Apr. 19-20, 1975. Former NIH researchers from many parts of the world are expected to attend the meeting.

The NIH Record

U.S. Department of Health, Education, and Welfare
September 18, 1975
Vol. XXII No. 18
National Institute of Health

Spring 1985

Nobel Prize winner Dr. Julius Axelrod of NIMH is the first NIH scientist to be honored on a Swedish postage stamp. He shares the honor with two other scientists, Prof. Ulf von Euler of Sweden and Sir Bernard Katz of England. In 1970, the three men were awarded the Nobel Prize in Medicine or Physiology for their independent research into the chemistry of nerve transmission ... Dr. Mortimer Lipsett was named director of the National Institute of Arthritis, Diabetes, Digestive and Kidney Diseases.



During the 1950's, on Wednesday nights during the winter, NIH bowling teams would take over the bowling alley (long gone) that was located on the corner of Old Georgetown Road and Woodmont Avenue. This picture was taken not later than 1957. Seated are (l to r): Emma Shelton (who sent *Update* this photo), Walter C. Schneider, A. J. "Jack" Dalton, Edward L. Kuff, George H. Hogeboom. If you recognize anyone standing in the back row, please send information to *Update*.

BALLOT

National Institutes of Health Alumni Association

PLEASE TEAR OUT AND RETURN WITH YOUR VOTE

In accordance with the bylaws of the NIHAA, alumni members of the association are to elect one-third of the board of the association. The nominating committee, appointed by President Thomas J. Kennedy, Jr., has nominated the alumni members listed below, each of whom has agreed to serve on the board of directors if elected. Each alumnus(a) member may vote for four (4) of the nominees. Please note that associate members (current NIH employees) are not eligible to vote in this election.

NOMINEES FOR NIHAA BOARD OF DIRECTORS

Please vote for up to four (4) and return your ballot to the NIHAA office, 9101 Old Georgetown Rd. Bethesda, MD 20814 by May 5, 1995.

- ☐ **Dr. Peter Condliffe**—Chief of Scholars-in-Residence Branch, Fogarty International Center, now scientist emeritus, Laboratory of Cellular and Developmental Biology, NIDDK, current board member.
- ☐ **Dr. Marguerite W. Coomes**—Staff fellow, Laboratory of Pharmacology, NIEHS, now professor of biochemistry and molecular biology, Howard University College of Medicine, current board member.
- ☐ **Dr. John Diggs**—NIH deputy director for extramural research, now vice president for biomedical research, American Association of Medical Colleges.
- ☐ **Dr. William Goldwater**—Director, Extramural Programs Management Office, now a consultant.
- ☐ **Mr. Joseph Keyes, Jr.**—Legislative Analyst, Office of Program Planning and Evaluation, OD, NIH, now vice president for institutional planning and development & general counsel, American Association of Medical Colleges, current board member.
- ☐ **Ms. Jane Leitch**—Executive Officer, NCRR, now retired.
- ☐ **Ms. Marjorie Melton**—Parasitologist, Laboratory of Parasitic Diseases, NIAID, now retired.
- ☐ **Dr. Bayard Morrison**—NCI Assistant Director, now retired.
- ☐ **Dr. Paul Parkman**—Deputy Director, Division of Virology, DBS; Director, Center for Biologics Evaluation and Research, FDA, now a consultant, current board member.
- ☐ **Dr. Joseph Perpich**—Associate Director for Program Planning & Evaluation, NIH, now vice president, grants & special programs, Howard Hughes Medical Institute, current board member.
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- ☐ **Dr. Marvin Schneiderman**—Associate Director for Science Policy, NCI, now on the staff of the National Research Council, current board member.
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NIHAA Update

Breakfast with Roskey

NIH's 'Iron Man' Marks SEP 15 1995 65th Year of Service National Institutes of Health

By Carla Garnett

Sitting around a Bldg. 1 cafeteria table at about 7:30 on a recent Friday morning, Roskey Jennings, who'd just finished a week of night shifts, remembered something humorous that former NIH director Dr. James Shannon once said to him: "He said, 'Roscoe, you go outside and hang over the side of the front rail. And you just stay there. And if anyone says anything to you about it, you tell them this building is just as much yours as it is mine. Your name ought to go right along side mine.'"

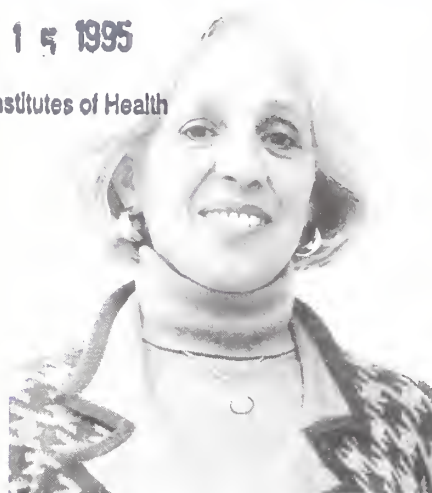
Since Bldg. 1 was renamed in honor of Shannon in 1983, that quote has to be at least 12 years old. It's probably not even remarkable to recall the story, except that Jennings can remember NIH tales lots further back than that. He can remember when he used to chat frequently with Shannon—when Shannon was director during NIH's golden days

(See *Jennings p. 20*)



Roskey Jennings

LIBRARY



Dr. Maxine F. Singer

Singer Chosen as 1995 Public Service Awardee

The NIH Alumni Association is pleased to announce that its third Public Service Award will go to Dr. Maxine F. Singer.

Singer, president of the Carnegie Institution of Washington since 1988, graduated from Swarthmore College in 1952, receiving an A.B. with high honors. She proceeded to Yale University for graduate study, where she was awarded a Ph.D. in biochemistry in 1957. Joining the National Institutes of Health initially as a postdoctoral fellow, she was appointed chief, Laboratory of Biochemistry, National Cancer Institute, in 1980. She served in that position until 1987, becoming scientist emeritus the following year, a position she still holds.

An early collaborator with Dr. Marshall Nirenberg, her research ranged over numerous areas of biochemistry and molecular biology. Her recent work has concentrated on studies of a large family of repeated human DNA sequences called LINES.

(See *Singer p. 2*)

From 'Watermelon to Plum'

NIH Edges Closer to 20-Year Master Plan

By Rich McManus

Toward the end of NIH's recent employee meeting on drafting a new 20-year master plan for the Bethesda campus, Steve Ficca, NIH associate director for research services, coined a metaphor that may well have explained the modest turnout for the event. The master plan, he said, could be thought of as a watermelon that, once pared away by budget realities, shifts in science, and vagaries of staffing and planning needs over the next two decades, could shrink to the size of a plum; NIH'ers, it seems, are really more interested in plums than watermelons.

But it was a pretty succulent watermelon that was on view May 16 in Lipsett Amphitheater as planning consultants and NIH authorities unveiled details—collected since the last draft was introduced in 1993—of the Big Picture for year 2015.

(See *Master Plan p. 18*)

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Singer (continued from p. 1)

Her contributions to the public good have not been limited, however, to her research. From her early days as a scientist, she took a leadership role in speaking out on policy, social and moral issues. In 1957, she interpreted in the pages of *Science* the research of Dr. Arthur Kornberg and his colleagues involving the synthesis of DNA *in vitro*. In 1973, she served as co-chair of the Gordon Conference where early concerns about risks in recombinant DNA research were raised. She was an organizer of the landmark Asilomar Conference and one of five signers of the summary statement of the Asilomar Report.

More recently, reflecting her concerns about the country's low level of science education and public understanding, she initiated the project, "First Light." In this effort, Washington 3rd, 4th and 5th graders attend a Saturday science school at the

Carnegie Institution's administration building.

She has been the recipient of numerous major honors, including the Distinguished Presidential Rank Award (1988); the National Medal of Science (1992); election to the National Academy of Sciences (1979) and the Pontifical Academy of Sciences (1986). She has served as a trustee of the Yale University Corporation, a chairman of the Smithsonian Council, a director of the Whitehead Institute and of Johnson & Johnson and on the Board of Governors and Scientific Advisory Council of the Weizmann Institute. She has also received numerous honorary degrees.

On Thursday, Oct. 12, 1995, a reception in her honor will be hosted by the NIH Alumni Association at the Mary Woodard Lasker Center (the Cloister) from 5:30 p.m. to 7:30 p.m. Invitations with details will be mailed to members in September.



In a photo, circa 1956, members of the Laboratory of Biochemistry and Metabolism, NIAMD, get together for a musical evening. They are (from l): Maxine Singer, alto recorder; Bruce Ames, alto recorder; Vic Ginsburg, tenor recorder; and Jesse Rabinowitz, soprano recorder.

Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814, (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or comments on and suggestions for the NIHAA Update, please drop a note to the editor. We reserve the right to edit materials.

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Thank you to the following companies and individuals for their support of NIHAA in 1995:

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 The Institute of Genomic Research

We would also like to thank Glaxo Inc., Sandoz Research Institute and Wyeth-Ayerst for underwriting the printing of NIHAA Update.

We extend special appreciation to our members who have contributed donations beyond their dues payment.

Members Briefed on NIH Budget, "Reinvention" and Public Education at Annual Meeting

The 1995 annual meeting of the NIH Alumni Association on July 10 offered substantial content, candor and challenge for the more than 100 members and guests who came to the Mary Woodard Lasker Center. The response was uniformly enthusiastic. Rep. Constance A. Morella set the tone of the meeting. She focused on the challenges to NIH funding from the budget cuts required for deficit reduction, and on the implications for NIH of the "reinvention" initiative.

Morella's long-term interest in health matters, she said, led to her appreciation of, and support for, the National Institutes of Health well before she was elected as representative of the congressional district in which the agency is located.

She sees NIH as a major generator of jobs and economic activity for Maryland and the nation, citing a recent study showing that NIH in 1993 alone contributed nearly \$45 billion to the U.S. economy and 726,000 jobs.

She noted that NIH research spawned the U.S. biotechnology revolution and that biotechnology-derived products are a \$6 billion industry today, expected to grow to \$50 billion by the turn of the century. Far exceeding such gains are the long-term returns from investment in NIH-conducted and supported biomedical research in terms of the health of the current and future generations.

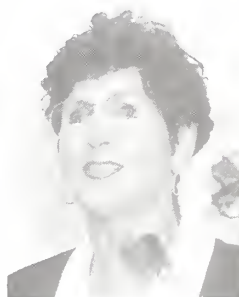
Morella told of her continued efforts in opposing the reduced NIH funding levels in the FY1996 budget resolution.

She also reported on her appeals to other members to join in urging Appropriations Subcommittee Chairman John Porter not only to oppose cuts in the NIH appropriation for FY1996, but also to support additional NIH funding. While "cautiously optimistic" about the fate of the NIH appropriation, now under consideration, she pointed out that protection of the agency's funding level will come at a significant cost to other health, human service and education programs. The questions before Congress concern priorities in a time of "universal suffering." She warned of the danger of "everyone thinking that NIH is automatically protected."

With respect to the effect on NIH of administration proposals for "reinventing and downsizing" government, Morella reported that she had urged Vice President Gore to reject any proposal to "privatize" the NIH Clinical Center. Appropriations Subcommittee Chairman Porter and Women's Caucus co-chair Nita Lowey, who is also a member of the Appropriations Subcommittee, joined her in the letter to Gore. She commented that Dr. Thomas J. Kennedy's "thoughtful analysis on behalf of the NIH Alumni Association regarding the critical importance of NIH" had been useful in her efforts to be supportive. She mentioned particularly Kennedy's summary of the effects of the downsizing approach. Morella said that the summary was the source of a number of her questions addressed to HHS Secretary Shalala at a hearing of the Government Reform Subcommittee on Human Resources and Intergovernmental Relations.

Morella told of her co-sponsorship last year of a bill to establish a fund for

(See *Annual Meeting* p. 4)



Annual Meeting (continued from p. 3)

medical research in any health care reform package. The fund so created for medical research would supplement the budget of the NIH through a 1 percent set-aside of health-insurance premiums and a voluntary check-off on income tax returns.

In response to the question "Do we do harm in strong advocacy of research over other national needs?" she responded that "to be quiet would invite the cyclone. Members of Congress respond to the people they represent, especially when they give good reasons for what they request," Morella said, adding, "and you have good reason."

The audience was also given a view of "reinvention," from an operational perspective

by Dr. Wendy Baldwin, NIH deputy director for extramural research. The NIH extramural programs have been

designated one of the several Executive Branch "reinvention laboratories" to lead in the process of change for extramural functions in the Public Health Service. She told how this particular "laboratory" activity, which she heads, has facilitated efforts of the Office of Extramural Research to reevaluate NIH policies and procedures. In her view "reinvention" came along at a good time to give impetus to ongoing efforts to improve the way NIH does business. Baldwin spoke of her long-standing interest in reducing "administrivia."

Initiatives are underway to streamline peer review and processing of research grant applications as well as R



& D contract proposals. Beginning with the February 1995 reviews, all Division of Research Grants study sections have employed a streamlined review process that allows for fuller discussion of applications identified in advance by reviewers as the best (approximately half of pending applications.) Only the upper "half" of applications will receive scores. This procedural change followed successful pilot studies conducted on two review rounds in 1994. Under another change, now in effect, all applicants will receive the essentially unedited comments and critiques from reviewers. Scored applications will be given a "Resume and Summary of Discussion" in addition to the critiques.

Experimental procedures are under way to postpone the collection of a fairly substantial amount of the "other support" information and complete budget detail currently required at the time of submission of all grant applications. This would reduce the administrative burden associated with grant application without compromising the initial review for scientific merit. Detailed budget information relevant to an award would be submitted when it is first needed, "just in time" prior to award. This would reduce the administrative burden for the approximately 75 percent of applicants who do not receive an award.

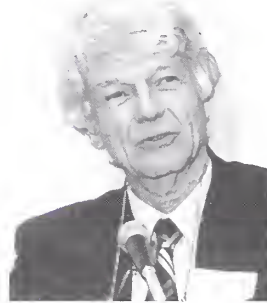
Pilot experiments are under way as a part of the planning process for effective use of electronic communications technologies for the exchange of essential information in the application and grant administration processes. Since there is diversity in the way applicant organizations use systems to create applications, NIH is cooperating with other federal agencies to design and publish Electronic Data Interchange standards.

Access to the NIH Guide and tele-

phone directory is now provided online as well as to the CRISP database which lists all NIH grants and contracts.

The third speaker at the meeting was Dr. Robert N. Butler, founding director of the National Institute on Aging who now heads the Institute on Aging Research at Mt. Sinai School of Medicine, N.Y. He challenged the NIHAA to take a strong role in public education. He warned that the health prospects for our rapidly aging population are in jeopardy, citing the drive to cut Medicare, threats to the support of fundamental and clinical research on aging and gaps in the training of physi-

cians. He was gloomy regarding prospects for NIH in general and emphasized the need for better public understanding of the practical



value of research. Butler said he feels that the NIH Alumni Association can do much in public education, that we should take the lead in helping to find additional sources of financial support for research. "As alumni," he said, "we can be outspoken and maybe outrageous" (See excerpts from his talk starting on page 5.)

At the business meeting part of the program, Dr. William S. Jordan, nominating committee chairman, reported the election by the board of directors of the following officers for two-year terms:

President: Calvin B. Baldwin, Jr.
Vice President: Dr. William I. Gay
Vice President: Dr. Joseph Perpich
Secretary: Storm Whaley

Treasurer: Dr. Harley Sheffield.

Noting that, under the NIHAA Constitution, two-thirds of the vacancies in the board of directors are filled by vote of the board, and one third by a membership ballot, Jordan announced the following were elected by the board to serve a three-year term:

Dr. Peter Condliffe
Dr. Marguerite Coomes
Dr. William Goldwater
Ms. Jane Leitch
Dr. Paul Parkman
Dr. Eugene Weinbach.

The following were elected by ballot of the NIHAA membership:

Mr. Joseph Keyes
Dr. Bayard Morrison
Dr. Joseph Perpich (also elected vice president)
Dr. Marvin Schneiderman.

Following the formal presentations and a business meeting, the members and guests adjourned to a barbecue "picnic" arranged by board member Randy Schools in the Rathskeller Room of the Mary Woodard Lasker Center.

The NIHAA Historical Committee Needs Your Help

The NIHAA historical committee has contracted with NIH to conduct a comprehensive survey of historical memorabilia and objects. If you would like to volunteer to help with this project please contact Richard L. Seggel, chairman of the committee, at (301) 424-6449.

Health Prospects for An Aging Population

By Dr. Robert N. Butler

(Editor's note: This is the excerpted text of a talk delivered by Dr. Robert N. Butler at the annual meeting of the NIHAA on June 10, 1995. If you would like a copy of the entire text please write to the NIHAA, 9101 Old Georgetown Rd., Bethesda, MD 20814).

... The ultimate prospect for better health for an aging population resides in fundamental and clinical research. It is for that reason that I took special pride when I had the opportunity and responsibility to direct the National Institute on Aging in trying to build up a field which was then considered both modest and diffuse. Modest in its development and diffuse and capacious in its content and goals.

The National Institute on Aging's status has improved. The field of research in aging is no longer considered second rate. The NIA has made significant contributions to understanding Alzheimer's disease such as the finding that Apolipoprotein E4 is a risk factor. The institute has prospered reasonably well in part because of its dedication to Alzheimer's disease.

However, the institute's extramural grant support is not in balance. As much as 50 percent of its support goes to one disease alone, Alzheimer's disease, despite the myriad diseases and disabilities of age. Moreover the NIA should be able to provide greater support for studies of the basic biology of aging in addition to elucidation of its social and behavioral aspects. Do not misunderstand, I favor every dollar that goes to Alzheimer's disease research. There should be more! But, I am talking about proportionate representation of target topics in a needed agenda for research in aging.

... But we only spend \$50 million a year to understand the basic biology of

aging! ...

Research in aging is not only in jeopardy, NIH as a whole is. As you well know despite the passage of the Hatfield Amendment—thankfully—and its possible influence upon the forthcoming conference between the House and the Senate, we are likely to see a real decline of NIH support below inflation. We will likely see a decline in training monies as well as fewer grants.

It is not possible to make up these losses in the corporate, foundation and philanthropic world—although we must try.

Today, we confront a kind of American mindless "Cultural Revolution" with marked anti-intellectualism, rising anti-science, anti-scholarship, anti-humanities, anti-arts, anti-public broadcasting.

Those of us who are in the scholarly and service professions must not become divided, for example, science against service, and service against science. Moreover, the field of science itself must not be divided, for example, with attacks upon the intramural program by the extramural community, by basic scientists versus clinical investigators, etc.

What can we do to support science at NIH in general and aging research in particular that would help build health prospects for an aging America? We must be more willing as scientists and scholars to help educate the American community about science. This will take time and energy. Obviously we cannot assume that money will simply be given to us. We must translate our technical knowledge into clear understandable terms for the public. The NIH Alumni Association could help accomplish this. We must not be

(See Butler p. 6)

Butler (continued from p. 5)

arrogant about patronage. Understand that just as Joseph Haydn had an Esterhazy family, we need our patrons, too. We should actively seek individual philanthropic support. Science should not and cannot depend upon government alone. Before the re-invention of government sweeps us away we should take leadership in helping to define what we think NIH should be. I challenge the NIH Alumni Association. As alumni we can afford to be outspoken, perhaps even outrageous. We have the freedom to speak. We should be strong NIH advocates.

How could NIH change its extramural programs? It could be more proactive; NIH could carefully review its extramural holdings and fill in the gaps, scientific opportunities and needs. Not just institute-by-institute but across institutes. Trans-NIH efforts such as aging are illustrative. NIH could develop a new training system, a "coupling system," to ensure that those who win training grants will also receive start-up support grants based on systematic annual re-evaluation. Clearly it is socially unwise and personally disastrous to train people if there are no opportunities for them to pursue research careers. Young people need something like a 5 year start-up to build competitive careers. NIH could develop stronger partnerships with the foundation and individual philanthropic organizations. NIH should work to secure additional funding via the Health Care Financing Administration (HCFA). An example: One percent of health costs under Medicare should be invested in research in aging and age-related diseases. A wise investment—since successful research is the ultimate cost containment.

Within the intramural program atten-

tion must be drawn to those activities that are difficult or impossible to do in the academic world. This is not a new idea at NIH. Studies that require the longitudinal perspective are illustrative. AIDS research may be one example. We need to study the immune and other biological functions of those who are HIV positive for years before sero-conversion. Longitudinality is certainly quintessential to gerontological research, which requires many measurements over time. We must better understand the natural history of the menopause. Second, the NIH needs to focus more on chronic, multi-system diseases. Third, diversity, to be certain that varied populations—by age, gender and ethnicity—are represented in studies at NIH. Fourth, interdisciplinary research, often difficult to accomplish in academia where one's promotions are dependent upon one's status within one's own disciplinary specialty. The NIMH Human Aging Study, 1955-66, catalyzed by the Kety-Schmidt method of measuring blood flow, oxygen and glucose consumption is an example of a successful NIH interdisciplinary program. Fifth, NIH should deal with orphan or rare diseases. Sixth, further collaboration with industry including animal models, especially aging animal models whose husbandry is very expensive. Consider the McCay effect studies at Poolesville, Maryland—testing of the effects of low-calorie diets on life expectancy in non-human primates. Pharmaceutical companies are necessarily devoted to application and depend upon NIH. An estimated \$100 billion of NIH funding helped build the biotechnology industry. Seventh, NIH must maintain breadth—from basic science to clinical application and expand specialized training opportunities. Eighth, NIH

must be willing to take chances—for science tends to become more conservative when money is tight.

As an advocate of the modern new biology, molecular genetics and molecular biology in general, I agree enthusiastically that the building blocks of life must be understood. At the same time, we must not lose sight of the building as well as the milieu or field in which the building resides.

We need the nexus of the basic biology working with the clinic where searching questions arise. The Clinical Center was set up that way and in 1955 when I first arrived, it was a state-of-the-art building. We need a similar state-of-the-art (new) Clinical Center once again!

We must not only reap the findings in molecular biology but test their general applicability through clinical investigations and trials as well as establish their appropriateness to specific conditions, often called outcomes research. We certainly need the new Clinical Center and a range of clinical programs in the country financed possibly by new mechanisms and funding (perhaps under the DRG methodology.)

It is *not* my view that NIH should literally take on all these responsibilities at once and work in all areas, but NIH and its leadership must have a vision of the entire spectrum of basic research to application to care in its direction of both the extra- and intramural programs.

To return to the issue of chronic diseases—they should certainly be studied at NIH to a greater extent given the revolution in longevity. In 1975 the admission of those over 65 to the Clinical Center was less than 2 percent. This was defended, by saying that it is difficult to study older people because of their frailty and many confounding

variables. But that is precisely why older and frail persons must be studied to understand better multi-system diseases, their impact upon homeostasis and the different nature of the presentation and course of diseases in old age.

Ultimately, we must have a vision of what we think are the proper functions of the National Institutes of Health at this time. It is called the National Institutes of Health, not of diseases. Its job is to address the health of the American people with respect to prevention as well as care and treatment. This requires a spectrum of types of research, which ultimately should result in more effective services. But never at the expense of inadequate investment in undifferentiated, curiosity-driven basic science ...

The great 21st century issue will be aging. (Unless we lose the battle against infectious diseases.) We have

gained nearly 28 years of life expectancy from birth in this country since 1900. And more than 5 years from base year 65. The revolution in longevity will become even more intense in the next century. NIH should be in the lead with studies of the fundamental processes of aging as well as the many associated diseases. The disease-mission institutes have already contributed enormously to building up population aging. Now we need coordination amongst the NIH institutes to address this new public health challenge, specifically the interacting of aging and diseases. To do so we must be proactive, not passive. There should be an NIH-wide aging initiative as I already emphasized.

Emerging populations like emerging diseases require special attention as we move into the 21st century. The Decade of the Brain has never been

fully realized but is of added importance given the rise of the devastating dementias with aging.

It has been said that NIH is a victim of its own successes by building extramural competitors. It is good that NIH did so. So now we have to find new opportunities to make new successes. NIH is a great national treasure that must not be put at risk. We must all respond to Tom Kennedy's "A Call to Arms" Spring 1995 issue of the *NIHAA Update*.

The Congressional commitment to reducing the federal deficit, downsizing the federal government and emphasizing the power of the private marketplace is vastly changing our country at large, including its science. Since science and technology are the engines of economic growth and change, our nation had best be careful that we do not stifle them. Since the health industry is one-seventh of the nation's economy, its biggest industry and largest employer, we best beware of the law of unintended consequences when we introduce radical changes of constraint. We need a national effort, perhaps a commission on the role of biomedical science in America—an engine to the economy as well as the basis of a healthy America.

The NIH Alumni Association should have a political arm and lobby on Capitol Hill. You also have the historic memory of value to contribute wise counsel to NIH planning.

I challenge all of us who love this great institution to do all we can to preserve that which is great and develop new directions where appropriate to build a new 21st century NIH. This is essential to ensure the health prospects of an aging population, indeed, to the nation's population as a whole.

Thank you. Good health.



Among the attendees at the NIHAA annual meeting on June 10, 1995, are (from l) Toby Hertz, Dr. Robert N. Butler, Dr. Thomas Malone, co-chair of the annual meeting committee, and Dr. Roy Hertz.

Research Festival '95 Schedule Announced

Mark your calendars for the 1995 NIH Research Festival, scheduled for the week of Sept. 18-22. Dr. James Battey, scientific director for NIDCD, chairs this year's organizing committee.

The annual festival features NIH's intramural research programs. Organizers plan to include 2 days of scientific meetings on Sept. 18 and 19, with 2 major symposia, 24 workshops, and 4 poster sessions. All these events are to be held in the Natcher Bldg.'s conference facilities.

The week concludes with a Scientific Equipment Show, sponsored by the Technical Sales Association. Displays and information booths are held in the Research Festival tents located in parking lot 10D.

"The festival has always been a popular format for NIH researchers to develop new contacts and establish networks," said Tom Flavin, chairman of the committee that coordinates the festival each year. "It's a great chance to connect real people and faces with the names you read in research papers."

The Research Festival was begun 10 years ago by Dr. Abner Notkins, chief, Laboratory of Oral Medicine, NIDR. Efforts by Notkins, subsequent committee chairpersons, the addition of the Alumni Symposium first presented in 1990, and the NIH Special Projects Office headed by Flavin, have made the event a great success. This year, however, because of the newness of the sponsoring institute, NIDCD, there will not be a Distinguished Alumni Symposium and Award.

The booklet detailing the final scheduling is now available. For more information call the NIH Visitor Information Center at (301) 496-1776 or the NIHAA office at (301) 530-0567.

NIH Research Festival '95 General Schedule of Events

All activities will take place in the William H. Natcher Bldg. (near the Metro station), unless otherwise noted.

SATURDAY, SEPT. 16

10:00 a.m.-3:00 p.m. Public Open House
All are invited to attend. NIHAA will have a table.

MONDAY, SEPT. 18

8:30 a.m.-11:00 a.m. Symposium - **Neuroscience, An NIH Sample**
Chair: Dr. Robert Wurtz, NEI
11:00 a.m.-1:00 p.m. Poster Session 1
1:30 p.m.-4:30 p.m. Workshop Session 1
4:30 p.m.-6:30 p.m. Poster Session 2
6:30 p.m. Evening Picnic*

* All attendees are welcome; sponsored by the Technical Sales Association (TSA). Tickets, available for a nominal fee, must be purchased in advance on the campus.

TUESDAY, SEPT. 19

8:30 a.m.-11:00 a.m. Symposium - **Regulation of Cellular Functions by Protein Phosphorylation and Dephosphorylation**
Chair: Dr. Jacalyn Pierce, NCI
11:00 a.m.-1:00 p.m. Poster Session 3
1:30 p.m.-4:30 p.m. Workshop Session 2
4:30 p.m.-6:30 p.m. Poster Session 4

THURSDAY, SEPT. 21

9:30 a.m.-3:30 p.m. Technical Sales Association (TSA) Scientific Equipment Show

FRIDAY, SEPT. 22

9:30 a.m.-2:30 p.m. Technical Sales Association (TSA) Scientific Equipment Show

Exhibits located under the tents in Parking Lot 10-D, near the Clinical Center.

Calendar of Exhibits and Upcoming Events

SEPTEMBER—DECEMBER

"Here Today, Here Tomorrow: Varieties of Medical Ephemera," an exhibit of printed medical ephemera from the collections of William H. Helfand and the National Library of Medicine now on display in the front lobby of NLM (Bldg. 38, 8600 Rockville Pike) until Sept. 11. Opening later in September will be an exhibit on "Medicine in India in the Nineteenth Century." The exhibit will feature photographs, books and memorabilia from the NLM and the collection of Dr. Kenneth Robbins. For more information call the History of Medicine Division, NLM, (301) 496-5405.

SEPTEMBER—NOVEMBER

Medicine for the Public:

Oct. 10—AIDS: Can We Boost the Immune System?

Dr. Joseph Kovacs,
NIH—Clinical Center

Oct. 17—Melanoma and the Suntan Generation

Dr. Stephen Katz
NIAMS and NCI

Oct. 24—Sickle Cell Anemia: New Treatments and the Search for a Cure

Dr. Griffin Rodgers
NIDDK

Oct. 31—Understanding Infertility and the Ovary

Dr. Lawrence Nelson
NICHD

Nov. 14—Drug-Resistant Bacteria: Old Foes with New Faces

Dr. David Henderson
NIH Clinical Center

Nov. 21—Depression

Dr. Philip Gold
NIMH

This is a lecture series on health and disease presented by NIH physicians and scientists sponsored by the Clinical Center, NIH. The lectures are free and held on Tuesday evenings beginning at 7 in Masur Auditorium, Bldg. 10. For more information call (301) 496-2563.

SEPTEMBER—MARCH 1996

The Foundation for Advanced Education in the Sciences, Inc., will sponsor eight concerts in the 1995-96 season.

Sept. 17—Richard Goode, piano
Oct. 8—Pamela & Claude Frank, violin and piano
Oct. 22—Raphael Ensemble
Nov. 19—Pamela & Claude Frank
Dec. 3—Vermeer String Quartet
Feb. 4—Radu Lupu, piano
Mar. 3—Ysaye String Quartet
Mar. 17—Pamela & Claude Frank

Concerts are held on Sunday at 4 p.m. in Masur Auditorium, Bldg. 10. Tickets are required. For more information call (301) 496-7976.

SEPTEMBER

The First Robert S. Gordon Lecture will be Wednesday, Sept. 13 at 3 p.m. in Masur Auditorium, Bldg. 10. The speaker will be Dr. Charles Hennekens who will speak on "Aspirin in the Secondary and Primary Prevention of Cardiovascular Disease." This is an annual NIH epidemiology award to recognize and honor a prominent epidemiologist/clinical trialist.

Research Festival '95
Sept. 18 and 19—Symposium, Poster Sessions, Workshops, Picnic

Sept. 21 and 22—Technical Sales Association Scientific Equipment Show

On Oct. 12, "The First NIH Postdoctoral and Clinical Fellows Symposium," a day-long program featuring 7 nationally recognized scientists from a diverse range of biological disciplines, will focus on the latest developments in molecular biology, especially those that contribute to an understanding of the etiology of major diseases. It will be held in the Natcher Auditorium from 8:00 a.m. to 5:15 p.m. This program is sponsored by the NIH Office of Education and the NIH Fellows Committee. For more information call (301) 496-3887.

Oct. 12, reception in honor of Dr. Maxine F. Singer, recipient of the 1995 NIHAA Public Service Award. It will be held at the Mary Woodard Lasker Center (the Cloister), Bldg. 60, on the grounds of the NIH campus, from 5:30 p.m. to 7:30 p.m. Details will be sent to members in September.

* * *

There is a series at NIH called the Wednesday Afternoon Lectures, held at 3:00 p.m. in Masur Auditorium, Bldg. 10. For information call Hilda Madine at (301) 594-5595.

For more information about various lectures and events at NIH, call (301) 496-1766. For more information about NIHAA call (301) 530-0567.

News From and About NIHAA Members and Foreign Chapters

Dr. Cosimo Ajimone-Marsan, chief of the Electroencephalography & Clinical Neurophysiology Branch, 1954-1979, is now professor of neurology, University of Miami, School of Medicine, department of neurology, and head of the EEG Laboratory, Jackson Memorial Hospital. He recently published in the *Journal of Clinical Neurophysiology* 12(1):46-56, an historical article entitled "National Institute of Neurological Diseases and Stroke, National Institutes of Health: Clinical Neurophysiology and Epilepsy in the First 25 Years of Its Intramural Program." Address correspondence and reprint requests to Dr. C. Ajimone-Marsan at 5895 SW 117th St., Miami, FL 33156-5007, U.S.

Dr. Serena M. Bagnasco, who was a visiting associate in the Laboratory of Kidney and Electrolyte Metabolism, NHLBI, from 1982 to 1987, is now in the department of pathology and laboratory of medicine at Emory University School of Medicine in Atlanta.

Dr. Paul Calabresi, who was a field investigator at NCI from 1956 to 1960, is professor and chairman emeritus, department of medicine at Brown University. He has been named to the President's Cancer Panel. He also was recently elected president of the New England Cancer Society, having served on the executive committee of the society since 1992, and was president-elect last year. He also has received the St. George Medal from the American Cancer Society National Division. This award is given to ACS volunteers for distinguished local service and 10 of the awards have been given since 1965.

Dr. Bruce A. Chabner recently retired from the National Cancer Institute after 23 years. He first joined NCI in 1967 as a commissioned officer and clinical associate. He served as director of NCI's Division of Cancer Treatment since 1982 and retired as a rear admiral in the U.S. Public Health Service. In June he became chief of hematology and medical oncology at Massachusetts General Hospital Cancer Center in Boston.

Dr. Pierre De Meyts came to NIH in January 1973 as a Fogarty International Postdoctoral Fellow to work with Jesse



Roth in the Clinical Endocrinology Branch, where he developed the concept of negative cooperativity in insulin binding. He became a visiting associate in 1975. In July 1976, he went back to the International Institute of Cellular and Molecular Pathology in Brussels. In 1986, he left to become director of the department of diabetes, endocrinology and metabolism at the City of

Hope National Medical Center in Duarte, Calif. In 1990 he became director of the Hagedorn Research Institute in Copenhagen, Denmark, a basic research institute devoted to diabetes research, affiliated with the danish pharmaceutical company Novo Nordisk. He is also professor in the sciences faculty at the Catholic University of Louvain in Belgium. He recently won the 1995 Quinquennial Joseph Maisin Scientific Prize in Biomedical Sciences from the Belgian National Fund for Scientific Research for his work on the structure and function of insulin and growth hormone receptors. The prize, which carries a cash award of about \$80,000 U.S. dollars, was given at an official ceremony by the King of Belgium in Brussels on July 5, 1995.

Dr. Sara Fuchs reports that the NIH Alumni Association of Israel will sponsor the first Christian B. Anfinsen memorial lecture on Nov. 16, 1995, at the Weizmann Institute of Science. Dr. Harold Varmus, NIH director, has agreed to speak. "Anfinsen's students and friends feel his loss very much."

Dr. Harry A. Gallis, who was a staff associate in the Laboratory of Microbiology, NIAID, from 1968 to 1970, writes that he is "currently on the faculty in Internal Medicine at Duke University School of Medicine." His current research interests and research are administrative director of the Duke AIDS Clinical Treatment Unit (NIH-ACTG); director of Clinical Research at Duke Center for AIDS Research, and director, antimicrobial evaluation unit.

Dr. Thomas Q. Garvey, III, a research associate at NCI from 1969-72 and a guest investigator at NIADDK, 1976-81, is now a clinical professor at George Washington University Medical School. He and his wife, Carol Wilson Garvey, have moved their practice into the university health plan facility in Rockville, Md. She will teach in GW's new family practice residency program, while he, in addition to maintaining his practice, continues as a consultant on drug development to the pharmaceutical industry.



Dr. Leonard G. Gomella, a medical staff fellow in the Surgery Branch at NCI from July 1986 to June 1988, has recently been named the first "Bernard W. Godwin, Jr., Associate Professor of Prostate Cancer" at Thomas Jefferson University in Philadelphia.

Dr. Bernadine P. Healy, former director of NIH from 1991 to 1994, has been named the new dean of the Ohio State University College of Medicine. Healy will start Sept. 25. "This is a major commitment and an opportunity to lead an institution into the next century," said Healy in an interview in the *Cleveland Plain Dealer*. OSU's College of Medicine has an enrollment of about 900 students and more than 1,000 full- and part-time faculty.

Dr. Gregory R. Hook, who was an NIH staff fellow from 1982 to 1987, is an attorney with Campbell and Flores in San Diego, Calif., specializing in biotechnology patent law. He writes that he received his JD in 1993 from George Mason University Law School. He received his Ph.D. from the University of California, Berkeley, bio-

physics group in 1973. From 1987 to 1990, he was a scientist at the Naval Medical Research Institute, Bethesda, Md., and from 1990 to 1994, he was a patent examiner at the U.S. Patent and Trademark Office, Arlington, Va., in the pharmaceutical part.

Dr. Alfred S. Ketcham reports that "having completed 38 years as a surgical oncologist, I retired from the faculty at the University of Miami School of Medicine on Apr. 30, 1995." He had



been professor of surgery and chief of the division of oncology since joining the Miami faculty in 1974. He had served at the National Cancer Institute from 1957 through 1974, first as a surgical investigator under Bob Smith, the first chief of surgery at NCI, then progressing to chief of the Surgical Branch of NCI in 1962. He was also appointed clinical director of the National Cancer Institute in 1970, a position he held until retiring to a second career at the University of Miami.

Dr. Edwin H. Kolodny, a special fellow, Laboratory of Neurochemistry (Dr. Roscoe Brady), NINDS, from 1967 to 1970, formerly was the director of the Eunice Kennedy Shriver Center for Mental Retardation in Waltham, Mass. Since 1991, he has been the Bernard and Charlotte Marden professor of neurology and chairman of the department of neurology at New York University School of Medicine. He received the Solomon A. Berson Medical Alumni Achievement Award in Clinical Science from NYU School of Medicine in 1993. He is also co-author with professors Raymond Adams and Gilles Lyon of the forthcoming second edition of *The Neurology of Inherited Metabolic Diseases of Children*.

Dr. Arthur Kornberg, a current NIGMS grantee who won the 1959 Nobel Prize in physiology or medicine, is an emeritus professor in the biochemistry department of Stanford University. He was at NIH from 1942 to 1953. Recently he received the 1995 Cosmos Club Award "in recognition of his internationally renowned contributions to defining the role of chemistry

(See Members p. 12)

Members (continued from p. 11)

in understanding life." He also was selected to receive the Gairdner Foundational International Award for his contribution to the understanding of DNA synthesis. He is one of three recipients of the award. In October 1995, during a ceremony in Toronto, Canada, he will receive \$22,500, a framed inscription and a sculpture.

Dr. Thomas J.A. Lehman, a medical staff fellow with NIDDK from July 1981 to June 1983, reports that he was recently promoted to professor of clinical pediatrics at Cornell University Medical Center.

Dr. Arthur W. Merrick, who was a health science administrator at NHLBI from 1972 to 1985, writes that he is sorry to have missed the "annual meeting and picnic ... my wife, all five offspring (from Montana, Kansas, Oregon, and Maryland) ... will be in Santa Barbara, Calif., winding down a celebration of our 50th wedding anniversary ... I marvel at the incredible professional beginning of the NIHAA and the newsletter. All of your hard work obviously will reap great dividends."

Dr. Harry M. Meyer, who was an NIH/FDA scientist from 1959 to 1986, writes that "My wife and I moved from our longtime home in the Washington, D.C. area to San Juan Island in Washington State this spring. We are building a new home on the west side of the island looking over the Haro Strait at Vancouver Island, some eight miles away. It is the best location in the 50 states to whale-watch. Orcas swim right into our cove. After retirement from PHS after 31 years service

in 1986, I worked as president of the Medical Research Division of American Cyanamid Co. from 1986 until I reached age 65 and retired in December 1993. Since then, in addition to planning our new house, selling the old one and moving, I work as a part-time research consultant."

Dr. Karen (Chayt) Marcus, who was a clinical associate at NCI Pediatric Branch from July 1983 to June 1986, is now at the Dana-Farber Cancer Institute. She writes "an update of where I have been and what I have been doing since leaving the NCI Pediatric Branch. In July of 1986, after completion of my NCI pediatric oncology fellowship, I began a residency in radiation oncology at Harvard Medical School's Joint Center for Radiation Therapy (JCRT). Upon completion of that training in 1989, I was invited to join the JCRT faculty where I have remained. I am division chief of radiation oncology at the Dana-Farber Cancer Institute and an associate in radiation oncology at the Boston Children's Hospital. I am an assistant professor of radiation oncology at Harvard Medical School. I am also very active in the pediatric oncology group and am on the executive committee for the radiation oncology discipline. In 1990, I married Michael Marcus, who was originally from Manchester, England. We live in Brookline, Mass., but make regular visits to Israel where Michael's family has lived since 1973."

George "Pat" Morse, who was at NIH as head of Protection and Safety Management, 1955-1970, is now director of his own company that consults in protection. Recently he has written a book, *America, Twice Betrayed* -

Reversing Fifty Years of Government Security Failure. The book details not only a half century of spies and traitors, and their exploits, but the reasons and circumstances that made their actions possible. An interesting feature of his book is the foreword written by John A. Walker, Jr., the convicted spy who is serving a life sentence after his conviction for stealing and selling U.S. secrets to the Soviets over a period of 18 years whom Morse interviewed. Morse is also the president and publisher of an eleven-volume series of *Precis of Official Catholic Teaching* that are summaries of Papal encyclicals, and other documents of the Magisterium of the Catholic Church. They are now sent throughout the Catholic world for use by seminaries, bishops, Papal Nuncios and others. Morse and his wife have been cited by the Pope on a number of occasions during Papal audiences at the Vatican.

Dr. Donald L. Morton, who was at NCI from 1960 to 1971, is now medical director of the John Wayne Cancer Institute, Santa Monica, Calif. He was recently presented the University of Texas M.D. Anderson Cancer Center's Jeffrey A. Gottlieb Award for his work in surgical oncology and immunotherapy of solid tumors.

Dr. Raj K. Narayan, who was a special expert, NINDS, Surgical Neurology Branch, July 1982 to June 1985, has recently been named professor and chairman, department of neurosurgery, Temple University Hospital, Philadelphia. Prior to that he was a professor of neurosurgery at Baylor College of Medicine in Texas, chief of neurosurgery at Ben Taub General Hospital and attending neurosurgeon at Methodist Hospital.

H. Kenneth Painter, who was at NIH from 1946 to 1978, is now retired. He identified one of the people (middle of the second row) in the photo on p. 38 of the Spring 1995 *Update* as James ("Jimmy") Marshall, who worked as a laboratory technician in the National Microbiological Institute. In May 1995, Painter was the subject of an interview in the *Bethesda Gazette* recalling his experiences as part of an Allied unit that liberated Dachau.

Dr. Aurora K. Pajean, who was a clinical associate in the Neuroepidemiology Branch, NINDS, from 1991 to 1994, is now in the neuroepidemiology unit, cerebrovascular section at the Neurology-Rush Medical Center in Chicago.

Dr. Barbara L. Parry, a senior staff associate in clinical psychology, NIMH, from July 1982 to October 1985, writes that she recently received from "the National Alliance for Research on Schizophrenia and Depression, an award for established investigators."

Dr. Dolores J. Patanelli who was at NICHD's Center for Population Research, Contraceptive Branch, writes that, "while at NICHD, I was responsible for implementing an extensive program for the development and clinical testing of new and improved barrier contraceptives. I was project officer on clinical studies that led to the FDA approval of the Today Contraceptive Sponge and the Cervical Cap. Before leaving NIH, I initiated studies with condoms made from polyurethane polymers. An important issue in these studies is the acceptability of the polyurethane polymers as a condom

membrane. Studies to date are quite encouraging, and my guess would be that at least two polyurethane condoms will be on the market within a year or two. Other activities included interactions with the FDA to develop appropriate study protocols for both premarket testing and postmarket testing of barrier contraceptive devices, especially those intended to prevent sexually transmitted diseases."

Dr. Saul A. Schepartz reports that on "Dec. 30, 1994, I retired from my position as deputy associate director for the NCI Developmental Therapeutics Program and am starting a consulting activity from home. Altogether, I spent over 31 years at NCI, 1958-1995 (I was away in academia, 1984-1989)."

Dr. S. Stephen Schiaffino, who was deputy director of DRG and then senior science advisor for Extramural Programs, OD, NIH, until his retirement in 1987, retired last year from his position as executive officer of the American Society for Clinical Nutrition. He is currently a volunteer at the National Museum of Health and Medicine located on the campus of the Walter Reed Army Medical Center. He reports "the museum is urgently in need of docents (tour leaders). Anyone interested in the volunteer activity should call the director of volunteer activities at the museum (202) 782-2201 for information. Several NIH alumni are currently serving as volunteers at the museum."

Dr. Louis M. Sherwood, who was at NIH as a clinical associate working with Dr. John Potts, National Heart Institute, 1963-1966, is currently senior vice president, medical and scientific



affairs, U.S. Human Health, Merck & Co., and adjunct professor of medicine, University of Pennsylvania. He was chair-

man, department of medicine, Albert Einstein College of Medicine before going to Merck in 1987.

Dr. Lawrence Shulman, who recently retired as director of NIAMS, has been appointed director emeritus. He is now serving as the NIH director's emissary to the clinical research community. Recently he was honored by two groups: The American Academy of Dermatology (AAD) and the Orthopaedic Research Society (ORS). The AAD organized a symposium titled "What's New and Hot in Clinical Research? A Tribute to Lawrence E. Shulman, M.D." where accolades were presented by representatives of medical centers and major dermatology organizations. The ORS dedicated the transactions of its 41st annual meeting to Shulman and to Ileen Stewart, who recently retired from her position as scientific review administrator in DRG. ORS's dedication to Shulman stated that "during his tenure as NIAMS Director, Dr. Shulman successfully guided the development of the Institute through its formative years. He played a pivotal role in facilitating the growth of both the intramural and extramural research area of the Institute by developing new programs, encouraging innovation, and seizing scientific opportunities."

(See *Members* p. 14)

Members (continued from p. 13)

Dr. Marc A. Silver, who was a medical staff fellow in the NHLBI Pathology Branch from 1982-1984, is now with the Heart Failure Program at Loyola University in Illinois. He has recently published a book (Plenum) about congestive heart failure written for patients and families titled: *Success with Heart Failure*.

Dr. Charlotte Silverman, who was at NIMH from 1962 to 1967 in the community services branch in various positions, finally becoming chief of epidemiologic studies, received an Alumni Life Achievement Award from Brooklyn College last year.

Dr. James A. Steele, who worked with Dr. Charles Armstrong in brucellosis and infectious diseases from September 1945 to September 1947, is now professor emeritus at the University of Texas School of Public Health. Recently, he was involved with the editing of two books: *Mycobacterium bovis Infection in Animals and Humans* that was published by Iowa State University Press, and the second edition of *The Handbook of Zoonoses Section A: Bacterial, Rickettsial, Chlamydia, and Mycotic, Section B: Viral*.

Dr. Harold L. Stewart, who has had a long and distinguished career at the National Cancer Institute since 1937, still works on campus as an NIH scientist emeritus. A special supplement of *Cancer*, Jan. 1, 1995, issue, was dedicated to him. The monograph titled "Histology of Cancer Incidence and Prognosis: SEER Population-Based Data 1973-1987," brings together 38 experts in pathology and epidemiology

who analyzed SEER data on frequency, incidence, and survival by cell type and cancer site.

Dr. John P. Utz, chief, infectious disease service, NIAID, 1952-1965, and currently professor emeritus, School of Medicine, Georgetown University, Washington D.C., has moved to Naples, Fla. He continues to serve on the boards of directors for: National Foundation for Infectious Diseases, National Institutes of Health Alumni Association and Data and Safety Management Board, NIAID.

Dr. P. Roy Vagelos, senior surgeon and then head of the section of comparative biochemistry, Laboratory of Biochemistry, NHLBI, from 1956 to 1966, is now chairman of the board of Regeneron Pharmaceuticals, Inc. He recently joined the research advisory board of the Institut de Recherche Cliniques de Montreal.

Dr. J. Craig Venter, who was chief, receptor biochemistry and molecular biology section, NINDS, from 1987 to 1992, is now director of the Institute of Genomic Research, Gaithersburg, Md. Recently he was featured in a cover story in *Business Week*, May 8, 1995. He also received wide coverage for his deciphering of the entire DNA sequence of the bacterium, *Hemophilus influenzae*, a feat never before achieved in a free-living organism.

Dr. Barbara A. Ward, a clinical staff fellow at NCI in the Surgery Branch from 1985 to 1987, has been named director of the Comprehensive Breast Care Center at the Yale University Cancer Center. She also is an assistant professor of surgery at the center.

Dr. Robert Warren, who was in the Medicine Branch, NCI, from 1974-77, recently has been named clinical affairs director of the Georgetown University



Rachel Thrasher, who from December 1958 to March 1978 was at the Clinical Center affiliated with NINDB, NIAID, and NEI, where she retired as head nurse, now lives at Asbury Methodist Village in Gaithersburg. She is very much involved in activities there as you see in the above photo (she is in back of the # 4) appearing in a production of *Campus Capers*. Other former NIH staff now living at Asbury include: Mary Daniel (NIMH), Dr. Robert Ing (NCI), Rachel Larson-Henry (NIDR), Dr. Donald M. MacCanon (NHLBI and DRG), Dan Rice (OD) and Del Thrasher (NIDR and NIAMD).

Lombardi Cancer Center, Washington, D.C. In this newly created position, he will oversee cancer patient care services and resources.

Dr. Gary M. Williams, who was at NCI in the Etiology Division, 1969-1971, writes that the "April 15, 1995, cover of *Cancer Research* featured Dr. John Weisburger (NCI 1949-1972) and me for our work on mechanisms of carcinogenesis. We are now at the American Health Foundation, Valhalla, N.Y., and recently were invited speakers at the 2nd Conference of the International Federation of Societies of Toxicologic Pathology, in Tours, France. The conference focused on cancer risk assessment and its application to sound regulatory policies."

Mary Woodside, who worked at the Clinical Center in the department of pathology with Dr. George Williams, from 1964 to 1974, reports that she has finally been able to move back to where she and her husband lived before Hurricane Andrew hit. "I've been in East Ridge Retirement Village since Gilbert and I moved here in January 1989. Hurricane Andrew did a lot of damage. We had been evacuated ahead of the storm. But the church we were sheltered in was itself in line with the storm, so we were taken care of but didn't miss the excitement!!! Our damaged apartments were emptied, things put in storage, and we were housed in a Holiday Inn in Delray Beach for five months; while we were there, Gilbert had another stroke from which he could not recover. It was February 1993 before I returned to East Ridge with the others. I've enjoyed reading the *NIHAA Update*. The news and pictures helped bring me into the present."

A Message From the New NIHAA President

On June 1 of this year, I replaced Thomas J. Kennedy, Jr., as the president of the NIH Alumni Association. Other new officers are William I. Gay, vice president; Joseph Perpich, vice president; and Storm Whaley, secretary. Harley G. Sheffield continues as treasurer.

I want to pay special tribute to Tom Kennedy who, during his two years as president, emphasized by example how the NIHAA can support the NIH within the constraints placed on 501 (c) 3 nonprofit organizations. The necessity for NIH alumni to speak out in support of the NIH mission also was a theme of two of our speakers at the 1995 annual meeting of the NIHAA, held at the Mary Woodard Lasker Center on June 10, 1995. Rep.

Connie Morella said that while she is "cautiously optimistic" about the fate of the FY 1996 NIH appropriation now under consideration, she is concerned about "everyone thinking that NIH is automatically protected." Dr. Robert Butler, former director of the National Institute on Aging, stressed that the NIHAA should take the lead in helping to find additional sources of financial support for research. "As alumni," he said, "we can be outspoken and maybe outrageous." In a recent editorial in *Science*, Congressman John E. Porter, current chairman of the House Appropriations Subcommittee responsible for the NIH, notes that House and Senate budget committees have recommended cuts in the NIH budget and "that these proposed cuts would be disastrous. Award rates would drop, young researchers would choose other careers, and momentum and poten-



Calvin B. Baldwin, Jr.

tial successes would be lost."

As the new president of NIHAA, I am sorry to greet you with a message of concern over the fiscal prospects for NIH. This is very different from my experiences during 33 very happy years as an administrator at NIH when the problem we often faced was how best to use our increased appropriations. I welcome any advice from our members about how the NIHAA can be an effective advocate for the NIH.

The strength of our organization is in its members. And, as one of the enthusiastic founders of the NIHAA, I am frankly disappointed at our inability to attract a larger membership. About 1,800 persons have joined the NIHAA since its inception in 1987; presently we have about 1,400 active members. That is a rather poor showing, consider-

(See *President's Letter* p. 16)

President's Letter (from p. 15)

ing the 50,000 or more people who have at one time worked at NIH.

A major problem is that NIH has neither a record of who has worked on the campus nor how former staff can be located. The NIHAA has offered to assist NIH in establishing a system of maintaining the addresses of alumni which we believe could be of immeasurable help to both the NIH and NIHAA. Tom Malone, former NIH deputy director and currently chairman of the NIHAA membership committee, and I have both had considerable success in attracting members by simply writing or calling acquaintances to urge them to join. I urge you to do the same to encourage membership. We will be happy to assist any of you who are willing to volunteer to help boost recruitment.

The past year has been a productive one for the NIHAA. We have published two copies of our newsletter, *NIHAA Update*, that have kept you informed about activities at NIH and individual alumni; Tom Kennedy testified for the NIH appropriation before the House Appropriations Committee; Roy Vagelos was the second recipient of the NIHAA Public Service Award; we assisted NIH in the 1994 Research Festival and held a reception for new clinical research associates; Tom Kennedy prepared an important paper, published in the *Update*, concerning current issues facing the NIH and the biomedical research community; and the NIHAA historical committee has contracted with NIH to conduct a campus-wide survey of historical objects and memorabilia.

The NIHAA board and officers welcome any thoughts you may have to make the association both more effective and attractive to its members. Please renew if you have not done so.

Attention

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update* at 9101 Old Georgetown Rd., Bethesda, Md 20814-1616

Name

Home Phone

Home address

News, including dates/position at NIH and photo if possible

Suggestions to newsletter

Suggestions for NIHAA

Science Research Update

Researchers Identify Hip Fracture Risk Factors

By Dr. Elia Ben-Ari

A host of readily identifiable factors, many of which can easily be modified, increase the risk of hip fracture in older women, according to researchers participating in the Study of Osteoporotic Fractures (SOF). The study, funded by NIH, involves more than 9,500 women age 65 and older and suggests that there are a number of steps women can take that may decrease their fracture risk. These include staying active, walking for exercise, getting treatment for impaired vision, quitting smoking, stopping use of certain medications, reducing caffeine intake, maintaining body weight and taking steps to maintain bone density, with estrogen replacement therapy or other treatments.

The researchers found that women who have five or more risk factors have an increased likelihood of suffering a hip fracture. Previous results from this group and others show that women with low bone density have a greater risk of hip fracture. This new study finds that assessing risk factors in addition to bone density further improves the ability to predict a woman's risk.

The results by Dr. Steven R. Cummings of the University of California, San Francisco (UCSF), and his colleagues at UCSF and four participating clinical centers in Baltimore, Minneapolis, Pittsburgh, and Portland, Ore., were reported in the Mar. 23 issue of the *New England Journal of Medicine*. SOF is a multicenter study in which over 9,500 white women age 65 and above and not living in nursing homes have been participating for 6 to 8 years. The study is supported by grants from

NIAMS and NIA to help understand who is at risk for hip fracture.

"The finding that there are many things that a woman can do on her own that may decrease her risk of hip fracture is extremely important," said Dr. Michael D. Lockshin, former acting director of NIAMS. "Also important is the idea that in the future it may be possible to identify specific women—and perhaps men—who are at especially high risk for hip fracture, and target them for intensive prevention efforts."

"Avoiding hip fracture is a life and death issue for many older people. It's a devastating injury," said Dr. Richard J. Hodes, director of NIA. One of every six white women will have a hip fracture during her lifetime. Of the more than 250,000 people each year who have hip fractures, up to 20 percent will not survive more than a year. Of those who do survive, many are left unable to walk and are forced to enter a nursing home. "Focusing on the prevention of hip fractures is an important element in our efforts to promote independence and an enhanced quality of life for older people," noted Hodes.

Researchers at the four participating clinical centers did tests for bone density and assessed other potential risk factors through physical examinations, questionnaires and interviews in 9,516 older women who had no previous hip fracture. They contacted these women at 4-month intervals for an average of 4.1 years to determine the frequency of hip fracture.

The SOF investigators identified 16 independent factors besides bone density that increased the risk of hip fracture in older women. The effect of most individual risk factors was modest, but together their impact was substantial. Fifteen percent of the women in the study had five or more risk factors (not including low bone density); these women had an 18 times greater occurrence of hip fractures than the 47 per-

cent of women with two or fewer risk factors. "A very small number of women with a lot of the risk factors plus low bone density account for most of the fractures," Cummings said. "The six percent of women who had five or more risk factors in addition to low bone density accounted for one-third of the 192 hip fractures we observed during the study period."

Because many of these risk factors can be identified by a simple physical examination and patient interview, they can provide health-care practitioners with valuable and easily obtained information that can help identify those older women who most urgently need to take steps to reduce their fracture risk.

Cummings and colleagues found that a woman whose mother suffered a hip fracture has twice the risk of hip fracture, and that this risk factor is independent of a woman's bone density. "Everyone has believed that family history is important, but this is the first time anyone has shown that it is in fact important and just how important it is," said Cummings. "What's surprising is that if your mother broke her hip, you're at higher risk of breaking your hip regardless of what your bone density is." Cummings emphasized, however, that "although you can't change your family history, you can reduce your risk in other ways. Taking precautions to reduce the risk of hip fractures is even more important for those with a family history."

Other factors that increased the risk of hip fracture were poorer health as rated by the women themselves, a history of hyperthyroidism, a history of any other fracture since age 50 and therapy with anticonvulsants or certain long-acting medications commonly taken for anxiety or insomnia. The risk of hip fracture also increased with caffeine intake, lack of exercise and smoking.

Master Plan (continued from p. 1)

Reflecting largely what is hoped for rather than what may actually come to pass, the new draft—premised on 10 percent growth in employee population by 2015, mainly intramural researchers (18,000 workers, total)—includes:

- A new, smaller inpatient hospital facility (600,000 square feet) and associated labs (250,000 square feet) to be appended to the current Bldg. 10 complex within a zone that encompasses the north and west faces of the existing building, which will be retained and could be renewed in phases.

- One new office site and 11 new laboratory buildings, including the Consolidated Laboratory Facility (Bldg. 50), which is envisioned at the site of the present parking lot at the corner of South and Center Drives. This would house workers from Bldgs. 3 and 7, as well as other temporary spaces on campus.

- Relocation of some intramural research programs from off-campus back to NIH; no specific program is currently targeted.

- Abandonment of Phase II of the Natcher Bldg. (which was to have been finished by 1997 as new quarters for approximately 3,000 NIH'ers currently occupying rental buildings in the area.)

- Stay the current course with the campus Infrastructure Modernization Program, which restores, renovates and replaces mechanical and electrical utility systems.

- Redevelop the Bldg. 14/28 site as a lab quad for up to four buildings. A replacement animal facility would be built into a hillside near Bldg. 41.

- Bldg. 12/13 complex to be replaced; area is redeveloped for more intense lab development near Clinical Center complex and Metro. A new office for relocated employees would be constructed adjacent to the Natcher Bldg.'s east

side.

- Central core of campus to be redeveloped as Central Mall connecting north and south ends of campus through open space and pedestrian paths. Bldgs. 29 and 30 to be replaced (they, along with Bldgs. 7 and 9, were deemed "beyond redemption as lab buildings"). Campus Center/Fitness Center replaces Bldg. 34 at mall's south end.

- Loop road to be created for improvement of campus circulation and organization. Roadway is pushed north of CC expansion (eliminating Apartment Bldg. 20, incidentally).

- Stormwater control pond created near corner of Cedar Lane and Rockville Pike.

- A new fire station and two new day care sites are needed, as are expansions to the present Power Plant.

"It's important to realize that we are not talking about a budget or program plan," cautioned Ficca. "This is simply a concept, a way to move forward in an organized fashion. It doesn't necessarily mean that all of this will come to fruition."

Ficca said several key elements contributed to the need to redraft the master plan—originally designed along themes dubbed "The Park," and "The Quad"—presented to employees on May 27, 1993.

"The desire to reflect the reality of budget and other resource constraints initially prompted by the President's 1995 budget was one of the things that made us rethink our plan," he said. Until that time, the plan was developed without resource constraints and based purely on research opportunities, which resulted in a 40 percent growth over 20 years; that figure has since been trimmed to 10 percent by such emerging realities as streamlining, downsiz-

ing and reinventing government phases I and II. Also contributing to the belt-tightening has been community input through local commissions and neighborhood groups. The concerns of the latter prompted NIH to add an Office of Community Liaison, headed by Jan Hedetniemi, to manage NIH's relations with its neighbors (See box on p. 19).

According to Stella Serras-Fiotes, master planner with the Facilities Planning and Programming Branch, Division of Engineering Services, NIH's draft plan went to Congress on June 30 for review. On July 15, NIH submitted the draft plan to both the "ultimate reviewer," the National Capital Planning Commission, and the public, along with an associated Environmental Impact Statement.

Copies are available for review at the NIH library (Bldg. 10), the NLM, the Environmental Reading Room (Bldg. 31/Rm 2B04), and the local public libraries.

After a summer of review and comment, September will feature more meetings with the public, she said, followed by finalization of documents in October. On Dec. 7, an approved master plan for the next 20 years is anticipated by NIH.

When the final plan emerges, it will be subject to review by NIH every 5 years, said Serras-Fiotes.

As a part of the review process, NIH has scheduled a public hearing on the Draft Master Plan and Draft Environment Impact Statement Supplement (DEISS) for Sept. 12, 7:30 p.m., at the William H. Natcher Auditorium on the NIH campus. NIH staff and representatives of the Community Working Group will be present prior to the hearing from 5:30 to 7:30 p.m. to provide information and respond to questions.



This is a drawing of the preliminary master plan for the Bethesda campus of NIH. Sketched by consultants to the Office of Research Services, it represents a vision of what the campus could look like in 2015. A final, approved version of the plan is expected by the end of 1995.

Office of Community Liaison Established by NIH

In September 1994, Janyce Hedetniemi was appointed first director of NIH's newly established Office of Community Liaison, located in the Office of the NIH Director.



Among her responsibilities are the oversight and monitoring of activities such as: NIH's disposal of medical and pathological waste; the development of NIH's campus master plan, including construction and transportation issues; and improvement in the way NIH interacts with people who live and work near NIH. Also, the office will be involved in the conduct of ongoing and planned studies related to testing of soil for possible environmental impact, recycling programs, standards related to noise levels, "green" buffer zones on the campus perimeter, and projection of NIH employment growth.

The office will interact with residents of the nearby community, the neighborhood advisory groups, the regulatory, appointed and elected bodies that advise and govern Montgomery County, the State of Maryland, the National Capital Planning Commission, and members of Congress.

On Mar. 11, 1995, the office held an NIH-Community Forum to discuss issues and set an agenda to promote and maintain communication between NIH and the neighboring communities.

Jennings (continued from p. 1)

from 1955 to 1968, about 30 years back. In fact, Jennings can remember hearing a kind word from almost every NIH director since Monday, Mar. 25, 1930. That's the day Roskey Jennings first reported for work at NIH's precursor, the Hygienic Laboratory on 25th and E Sts., in Northwest Washington, D.C.

"Sure, Dr. Shannon, Dr. [William] Sebrell [NIH director, 1950-1955], Dr. [Thomas] Parran [U.S. surgeon general, 1936-1948], all of them talked to me, treated me like a human being," said Jennings, recently holding court as the most senior and longest surviving member of Bldg. 1's unofficial breakfast club, the "Kitchen Cabinet." Most of the other dozen or so faithful Cabinet members have long since begun breaking their fasts at home—in the sweet "Land of the Retired." Only Jennings, who in March marked his 65th year working here, and two or three others still gather every weekday to start the morning with casual camaraderie and a hot meal. On Aug. 11, he turned 86 years old; do thoughts of retirement ever cross Jennings' mind?

At the utterance of the R-word, an expectant hush fell over the table. The 'Iron Man' looked up immediately from his plate of steaming grits and sausage, peered earnestly at the questioner, and said in a deadpan manner, "I want to wear out, not rust out." Then, he and his breakfast companions broke out in smiles and laughter.

* * *

"Oh, let's see, they started calling me the Iron Man in around 1950," recalled Jennings, an NIAID biological laboratory technician whose steel-trap mind can remember exact dates like well-learned history lessons. "The people in Bldg. 13 started calling me that 'cause

they'd see me around there working every day."

In fact there are several reasons for comparing the spry Jennings to the durable metal: He uses sick leave only once about every 43 years. He uses annual leave only at the end of every year when he takes some 2½ months off in pure use-or-lose leave.

"Tell them about your leave," coaxed fellow breakfast clubber Kevin Yeargins of NIH's Office of the Director. "He's got amazing leave."

"Oh, I've got about 10,000 hours of sick leave," he jokes, winking his eye, "and I've gone through about a hundred supervisors." In truth, Jennings' sick leave balance once reportedly topped 4,100 hours.

Another of the breakfast crew, NIAID's Al Gam, told a Roskey endurance story: It seems that once, following one of the area's bittercold snowstorms, the pavement around campus was covered in ice. Gam, concerned about Jennings' mobility in such slick conditions, asked him how he managed to stay upright when those around him slip and slide. "He said, 'Oh, I never fall on the ice—I don't walk fast enough.' We really laughed and laughed about that one."

Jennings has not used a day of sick leave since a 6-week stay in the hospital in 1986, when his family tricked him into seeing a doctor, having long overdue surgery and recuperation. Before that, he said, he had a streak of 43 years without using any sick leave. Even a 1964 on-the-job accident couldn't sideline Jennings, who reportedly returned to work from the hospital later with his injured hand in a sling.

Once, when because of a clerical mistake Jennings was cheated out of some annual leave, he took off some time in protest. His supervisor hired two people to replace him. Both fell ill—one with a serious fever and one

with polio—and were unable to work. The supervisor called Jennings at home and begged him to come back to work, promising to fix the leave error. Jennings still remembers the boss' frantic phone call: "He said, 'Seems like you're the only guinea pig that's left. You're the only one that can stay healthy enough to work around here. Come on back and I'll get everything straightened out.'"

"I went back that next week, but he never did straighten out my leave," Jennings said, grinning ruefully.

* * *

Jennings was one of four children born to a farmer and his wife in Danville, Va., in 1909. At the age of 12, he said that he asked his father to allow him to work his way through Hampton College. His father refused, saying the boy was too young and was needed to help work on the farm. Later that year, after consulting with his teacher, Miss Hattie, Jennings collected what he had been saving of his allowance for weeks, snuck off his father's farm, and paid his train fare to a Pennsylvania town where an aunt lived. Immediately he went in search of work, despite his aunt's pleas for him to return home. At the first place of business he came to, he asked for a job and in turn was asked his age. "I said I was 16," Jennings said, smiling at the memory. "And the man, laughing, said, 'You're a 16 lie. You should be in school, boy.' I had to laugh then, too."

Eventually, after persuading his aunt to vouch for him, Jennings landed that job, which was as a waterboy, toting icy pailfuls for thirsty manual laborers. The job was tough and the workers initially antagonized Jennings, enjoying the plight of the young boy struggling to and fro under the weight of the buckets. But then, payday came.

"I didn't know it, but the supervisor had been watching me all the time," Jennings said. "He told me I was a hard worker and he liked that. He threatened to fire any of the workers that gave me a hard time.

"I remember when I got my first ten-dollar bill, too. They used to be gold certificates in those days, you know. I stared at that gold and ran all the way to my aunt's house."

Eighteen months later, Jennings returned to his family's farm and gave them \$270 he had saved up from his wages.

"My father was real happy to have the money. He looked me over real good and said, 'You've got a lot of my blood in you. When you get your mind fixed on something, there's no stopping you.' My father lived to be 103. He stopped working at 102. He knew what he was talking about."

Interested in science since coming to work here, Jennings started his NIH career on a 3-month temporary assignment. He worked as an animal caretaker for several years and in NIH's library for 16 years until a position nearer to scientific work—washing glassware—opened in NIH's Laboratory of the Biology of Viruses. Currently his duties include sterilizing glassware used in experiments and providing technical support to scientists in NIAID's Laboratory of Viral Diseases in Bldg. 4.

"I've never been without a job since I was 12 years old," Jennings continued proudly. "All through the Depression, I had a job. I've been lucky."

* * *

If a person can be known by the company he keeps, then Roskey Jennings is NIH director, institute researcher, secretary, surgeon general, administrative assistant, as well as cam-



Roskey Jennings (seated), who on Mar. 25 celebrated his 65th year of working at NIH, shares most weekday mornings with other members of Bldg. 1's "Kitchen Cabinet" (from l) Kevin Yeargins, Al Gam and Gerry Carter.

pus chief cook and bottle washer. On any given morning any one of these folks can be seen stopping by to chat with an NIH institution.

"You're looking beautiful this morning," Jennings said, smiling slyly as he greeted a well-wisher.

"God bless him," said Janet Pritts of the Office of Research Services and the most recent in a long series of that Friday's Roskey admirers. "Is he smooth or what? That's why I come in here. He knows just what to say."

"Oh, he's real smooth all right," agreed breakfast club member Gerry Carter of NIAID. "You should see him around the holidays. Women line up to bring him things for Christmas and Thanksgiving."

Yet another group interrupted Jennings' stroll down memory lane to josh him about treating them to breakfast. "He's a real big spender," one of them said, laughing as she passed through.

"I lined up many a day outside this

building," Jennings said, sobering.

"They wouldn't let us eat in here then. I remember when there were Colored and White toilets here. I was with the first group that broke that down. I think it was Dr. Parran and some others writing and calling on our behalf. They didn't believe it was right. It finally got changed. I was glad to be here when it changed."

* * *

In 1957, Jennings went on the night shift, working through the early morning hours. Over his 65-year career, he has seen nearly every building on campus rise from just a big hole in the ground. He can recall the dates that most of them were built and about how much construction cost at the time.

"Bldg. 7," he said, "that's about the toughest building on campus. Truman dedicated that building. It cost over a million dollars to build and it's solid, probably the most solid ever built.

(See 'Iron Man' p. 22)

'Iron Man' (continued from p. 21)

There's not a window in it that you can raise."

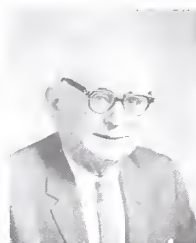
Jennings once went on a stretch of 32 years without a grade change. Most of his former supervisors he has not only outworked, but also outlived. He still hears from one, however—Dr. Victor Haas, who retired in 1957 from the Laboratory of Infectious Diseases.

"His wife writes me a card every Christmas," Jennings said. "She said Dr. Haas doesn't get around as well as I do. I'm real lucky. I'm glad to have as many friends as I do and I'm glad to have a job.

"The only advice I can offer to young people is to start now by changing your attitude. Get a job and stay with it. Don't ever give up. A person that gives up is beat before he starts. The life you live is the life you die. Working never hurt anybody. I have a lot of faith and when I die I want the Lord to say your job has been well done."

On June 13, Jennings was honored as part of the NIH Director's Awards Ceremony.

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Clinical Center Town Meeting Addresses Budget Realities

By Sara Byars

How do we cope with today's federal budget realities while continuing service as the country's only hospital devoted entirely to clinical research?

That's the essential question surrounding the Clinical Center today, and it topped the agenda at the June 7, 1995, town meeting.

Dr. John Gallin, CC director, shared the podium in Masur Auditorium with Dr. Helen Smits, deputy administrator of the Health Care Financing Administration, who chairs a CC Options Committee looking for ways to help the Clinical Center to do its vital business better.

"The incentive is to improve the Clinical Center. It's not to dismantle it,

it's not to close it. It's to make it stronger, make it better," Gallin said. "And we will look at all alternatives that are needed to do that."

"Our aim is . . . to find methods, to find legal flexibility," added Smits, "to let this place be for the next 25 years just as great as it's been for the last 25 because you've got a lot of very important work to do."

Medical and scientific discoveries that have unfolded and are being developed at the CC have revolutionized biomedical research and clinical care in everything from cancer to infectious diseases. "At the same time," Gallin continued, "our government is in the midst of the most dramatic fiscal crisis of our lives, and the NIH and the Clinical Center will not be immune

from the impact of all these events."

"The Clinical Center is the world's largest hospital devoted to clinical research and an invaluable asset to the nation," HHS Secretary Donna Shalala said in a May 11 broadcast message to employees. "However, rising costs at the Clinical Center have forced us to scale back some of our research programs. To preserve, protect, and strengthen our research we have to minimize overhead and hospital operating costs."

The second phase of Vice President Gore's reinventing government initiative, dubbed REGO-II, fuels this drive for increased efficiency at the Clinical Center. But, there will be no quick and global fix.

"Yes, we will be looking at whether contracting out portions of the Clinical Center is a wise direction," Gallin explained. "But, we will not do anything if it can't be shown to be cost-effective and if we can't clearly convince ourselves that the recommendations will result in a better research enterprise. Contracting out the entire Clinical Center would clearly, in my opinion, disrupt the delicate and valuable relationships between the Clinical Center and institute staff that makes our facility so special and so successful."

"Remember, half—50 percent—of your budget," added Smits, "is not personnel costs. It's other costs. It's possible to find tremendous savings in there which help become the cushion that allows you to maintain the employment, retain good staff, and keep good people here."

Options team members will scrutinize how other similar institutions operate to help determine strategies for savings that would work here.

(See *Clinical Center* p. 24)



Dr. Helen Smits, who heads a committee looking for ways to make the CC operation more efficient, joins Dr. John Gallin, CC director, at the podium during June 7 town meeting to update employees on future directions.

Clinical Center (continued from p. 23)

"That's very important for people here, many of whom have grown up in this culture over many years, to see what it's like outside, to see what information systems are like, to see how people do budget control," Smits explained.

"Research centers nationwide are dealing with these challenges in different ways because they are experiencing many of the same challenges," Gallin said. "Some academic centers are merging to alleviate problems. Other hospitals are closing and eliminating their research enterprises. But the Clinical Center must stay open. It must stay open as both a symbol of what we represent to the clinical research process in this country and because of what we do in clinical research," he said.

Several factors have conspired to drive up the cost of clinical research, including a decline in the patient census due to:

- The elimination of omnibus protocols, which covered patients admitted to the Clinical Center for standard, routine care.
- An increase in the number of patients seen as outpatients rather than as inpatients.
- A reduction in money available for patient travel.
- Competition with managed-care health plans.

Even so, Gallin added, Clinical Center costs have grown at a significantly slower pace between 1990 and 1995 than has the NIH management fund, money used to support the campus infrastructure and the entire intramural program. During this time the management fund grew by about 25 percent and the intramural budget by 27 percent, while Clinical Center overall costs increased by only 17 percent.

NIH Notes —February 1995 to July 1995

AWARDS AND HONORS

Dr. Bruce Baum, NIDR clinical director, is the first recipient of a new award from the International Association for Dental Research Award for geriatric oral research. He was selected because of his "outstanding research accomplishments in the field of geriatric oral research" ... **Dr. Paul Didisheim**, medical officer in NHLBI's Division of Heart and Vascular Diseases, has received the first C. William Hall Award from the Society for Biomaterials for his outstanding contributions in advancing the field of biomaterials and the society's scientific goals ... **Dr. Anthony S. Fauci**, NIAID director, recently received a plethora of awards both in the U.S. and abroad. In the U.S., he received four distinguished awards: the Honorary Fellow Award from the American Academy of Allergy and Immunology, the Richard and Hinda Rosenthal Award from the American College of Physicians, the Theobald Smith Award from Albany Medical College, and the Ellis Island Medal of Honor for Medical Research. In Europe, he received three more awards for his contributions to science and medicine: the Ernst Jung Prize for Medicine in Hamburg, Germany and in Spain, he accepted the Gold Medal of the Autonomus University of Barcelona and membership into the Spanish Royal Academy of Medicine of Barcelona ... **Dr. Joseph F. Fraumeni, Jr.**, director of epidemiology and biostatistics at NCI, and **Dr. Frederick P. Li**, chief of epidemiology and control at the Dana-Farber Cancer Institute and formerly in charge of field studies for NCI in Boston, received the Charles M. Mott Prize for cancer research. The awards are given by the General Motors Cancer Research Foundation. Fraumeni and Li received the award for their "studies of genetic and environmental determinants in cancer prone families, leading to the identification of the novel syndrome of diverse cancers that bear their names, using a combined clinical, analytic, and experimental approach that predated the evolving field of molecular and genetic epidemiology" ... **Dr. Harvey Klein**, chief of the Department of Transfusion Medicine, received the Mid-

Atlantic Association of Blood Banks' Charles E. Walter Memorial Award. The award goes to association members who make exceptional contributions to blood banking, donor recruitment, and immunohematology. He also has been elected to the 1995-2000 committee of revision of the United States Pharmacopoeial Convention, Inc. ... **Dr. Harvey J. Kupferberg**, chief of the preclinical pharmacology section of NINDS's Epilepsy Branch, recently received the first American Epilepsy Society Service Award for his outstanding contributions to the field of epilepsy in developing new antiepileptic medications. He is responsible for NINDS Antiepileptic Drug Development Program's preclinical development of new drugs for the treatment of seizures ... **Rosemary McCabe Hamill**, a section chief with NIAID's Contract Management Branch, was recently named a fellow of the National Contract Management Association (NCMA). She is only the third NIH'er to receive this award, which is based on academic achievement, work experience and contributions to the contract community ... **Dr. Richard Leapman**, a physical scientist in NCRR's Biomedical Engineering and Instrumentation Program, has won the Samuel Wesley Stratton Award from the National Institute of Standards and Technology. He is the first person outside of NIST to be so honored. He shared the \$5,000 prize with Dr. Dale Newbury of NIST for their development of a trace elemental analysis technique that works at the nanometer scale, measuring in billionths per meter ... **Dr. Claude Lenfant**, NHLBI director, was awarded the Distinguished Executive Service Award from the Senior Executive Association (SEA), a nonprofit, professional association that represents the interests of more than 7,000 senior executive service men and women. SEA recognized Lenfant's overall career achievements and cited his skills in initiating and managing highly visible, complex, and sensitive programs of national and international scope, as well as for a history of outstanding leadership and management and development of research programs ... **Dr. Donald H. Luecke**, DRG deputy director and acting DRG director, was recently promoted to the rank of rear admiral in the Public Health Service's Commissioned Corps. One of 15 corps flag officers at NIH, he has been engaged in many important activities related to improving peer review and the extra-

mural programs at NIH ... **Dr. Ronald P. Mason**, a research chemist at NIEHS, has received the American Chemical Society's 1994 Southern Chemist Award. The prize confers a gold medal and an award and recognizes distinguished service to the profession. Mason, on the staff of the Laboratory of Molecular Biophysics, has been among the pioneers in the application of electron spin resonance techniques to biochemical, pharmacological, and toxicological problems ... **Dr. Bernard Moss**, chief of NIAID's Laboratory of Viral Diseases, received the 1994 ICN International Prize in Virology, consisting of an award and \$50,000. The prize recognizes Moss's many fundamental contributions to knowledge of vaccinia virus—well-known for its role as the vaccine that eradicated smallpox—and for the worldwide impact of his research ... **Dr. Robert Nussenblatt**, director of NEI's Division of Intramural Research, received a *docteur honoris causa* (honorary doctor of science degree) from the University of Paris, France, in recognition of his lifelong work in intraocular diseases ... **Dr. Joost J. Oppenheim**, chief of the NCI Laboratory of Molecular Immunoregulation in the Biological Response Modifiers Program, was recently honored during a 2-day "festschrift" international symposium on "Cytokines and Chemokines" convened in his honor in Lubeck, Germany. He was honored for his research accomplishments and his role in training young scientists in immunological research during his more than 30 years at NIH ... **Donald R. Shopland**, coordinator of NCI's Smoking and Tobacco Control Program, was recently awarded the 1995 Joseph W. Cullen Award. He was honored with the Cullen Award in recognition of his lifelong contributions to the field of smoking and tobacco ... **Dr. Cynthia Sung**, a senior staff fellow with the National Center for Research Resources, has recently been named one of Maryland's Distinguished Young Engineers for 1995. She received the award for her ability to apply engineering principles to the problems of drug delivery in the body as well as for her academic accomplishments and professional integrity ... **Dr. Federico Welsch**, associate director for international affairs, NCI, received from the Slovak Academy of Science the Johannes Jessenius Medal of Honor for his support of cancer research in Slovakia ... **Dr. Robert Wurtz**, chief of NEI's Laboratory of Sensorimotor Research, was

recently honored with the Karl Spencer Lashley Award by the American Philosophical Society, for "brilliant technical innovations in recording the activity of single visual neurons of alert behaviorally trained monkeys that made possible salient scientific discoveries relating individual nerve cells to visual perception and the generation of eye movement."

APPOINTMENTS AND PERSONNEL CHANGES

Dr. Norman B. Anderson has been named to the newly established position of NIH associate director for behavioral and social sciences research. He was an associate professor in the departments of psychiatry and psychology; social and health sciences at Duke University. He is also founder and director of Duke's Program on Health, Behavior, and Aging in Black Americans and director of Duke's Exploratory Center for Research on Health Promotion in Older Minorities ... **Colleen Barros**, chief administrative officer for the Office of the Director, NIH, for the last 6 years, has been named executive officer for the National Institute on Aging ... **Dr. James Battey** has been named director of the NIDCD's Division of Intramural Research. He came to NIH in 1983, first on the staff of the National Cancer Institute, where he rose from senior staff fellow to senior investigator. In 1988, he moved to NINDS as chief of the molecular neuroscience section in the Laboratory of Neurochemistry. In 1992, he returned to NCI to head the molecular structure section of the Laboratory of Biological Chemistry and became chief in 1993 ... **Dr. Anne Bavier** has been named deputy director, Office of Research on Women's Health, OD ... **Evelyn R. Burrell** was recently appointed chief, Administrative Management Branch, Division of Intramural Research, NICHD. This office provides services and support to NICHD's Intramural Research Program ... **Dr. Richard J. Davey**, who served the Clinical Center's department of transfusion medicine as chief of the laboratory services section, left recently to become chief medical officer of the American Red Cross ... **Dr. Mary C. Dufour** has been named deputy director of the National Institute on Alcohol Abuse and Alcoholism. She is a nationally recognized expert in alcohol epidemiology

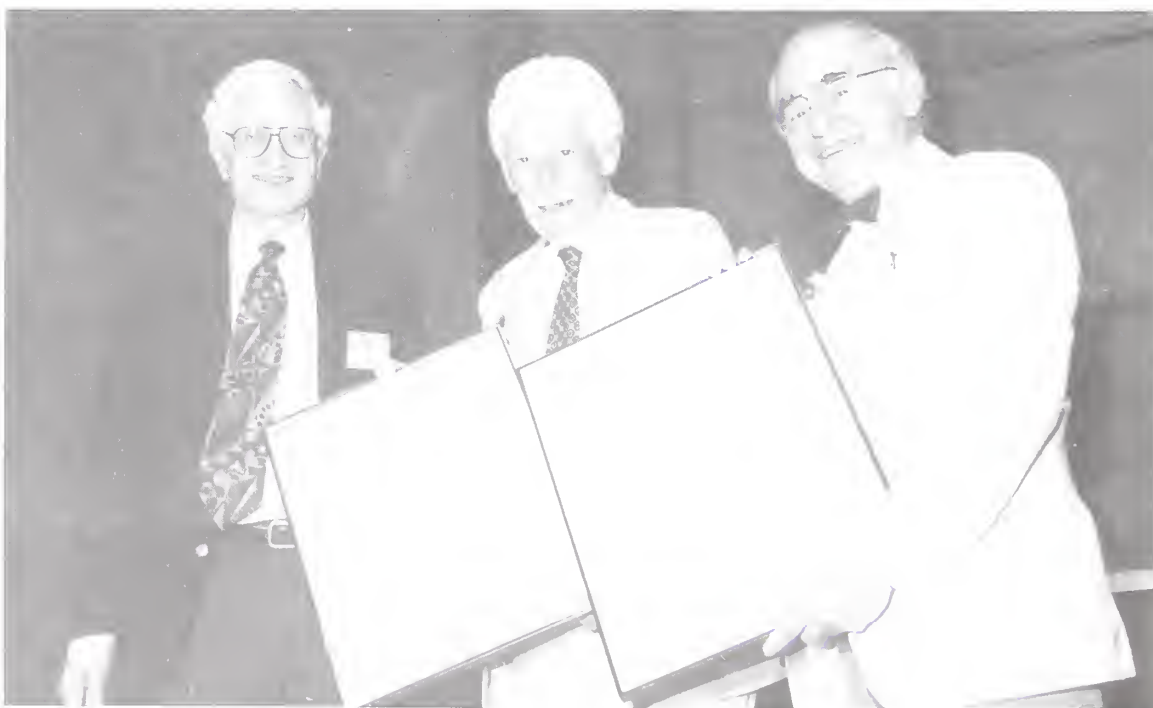
and served from 1987 to 1993 as chief of the Epidemiology Branch in NIAAA's Division of Biometry and Epidemiology. Among her special research interests are alcohol-related morbidity and mortality, especially alcoholic liver disease, breast cancer, alcohol liver disease, breast cancer, alcohol and women, alcohol and nutrition, and risks and benefits of moderate alcohol consumption ... **Dr. Chhanda L. Ganguly**, formerly a scientific review administrator (SRA) at NCRR and a senior staff fellow at NIHBI, has joined the Division of Research Grants as a SRA for the biochemistry study section ... **Michael Goldrich** has been named NIAID's deputy director for management and operations. Prior to the appointment he was the executive officer for the institute ... **Dr. Patricia Grady** has been named to head the National Institute of Nursing Research. She had been the NINDS deputy director and is nationally recognized for her broad academic and clinical research background and experience in conducting and managing neurological research ... **Dr. Stephen I. Katz**, chief of the Dermatology Branch, NCI, has been named director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases. An internationally known dermatologist and immunologist, he succeeds Dr. Michael D. Lockshin, acting director, NIAMS, and Dr. Lawrence E. Shulman, the first and founding director of the institute who retired. Katz will maintain his branch at NCI ... **Dr. Thomas J. Kindt**, chief of NIAID's Laboratory of Immunogenetics, has been appointed director of the Division of Intramural Research at NIAID, succeeding Dr. John Gallin. He has long been recognized for his expertise in the field of immunology and has made seminal contributions in understanding human T-cell leukemia virus-1 ... **Dr. Matthew Kinnard** recently assumed the role of director of the Extramural Associates Program within the Office of Extramural Research, OD. Established in 1978, EAP provides opportunities for greater awareness of and participation in PHS-sponsored biomedical and behavioral research at minority and women's institutions throughout the country. He comes to EAP from NIDR where he was director of the oral soft tissue diseases and AIDS research area ... **Dr. Richard D. Klausner** has been named director of the National Cancer Institute. He has been chief of the Cell Biology and Metabolism Branch of NICHD since 1984. He is an

internationally recognized scientist who has made major contributions in the fields of immunology, cell biology and molecular biology. He is the immediate past president of the American Society for Clinical Investigation and, for the past two years, has been chairman of the National Science Education Standards Project of the National Academy of Sciences ... **Dr. Ira Levin** was recently appointed deputy director of NIDDK's Division of Intramural Research. Former deputy chief of the Laboratory of Chemical Physics and chief of that laboratory's section on molecular biophysics, he succeeds Dr. Edward Steers, Jr., who retired in September ... **Francine Little**, was named director, Office of Financial Management, OD. She has been acting director of the office since June 1993 ... **Dr. Yvonne T. Maddox**, chief, Pharmacology and Physiological Sciences Branch, NIGMS, has been named deputy director of NICHD. She has been active in many trans-NIH activities, including women's health, the trauma task force, nutrition, the

grants associates board, and the STEP program ... **Dr. Percy Manchand** recently joined NIGMS as a health scientist administrator in the Division of Pharmacology, Physiology, and Biological Chemistry. His portfolio of grants will focus on synthetic and medicinal chemistry. He comes to NIGMS from Hoffman-LaRoche, Inc., where he served as the head of synthesis research ... **Dr. Louis H. Miller** has been named chief of NIAID's Laboratory of Parasitic Diseases. Since 1992, he has been chief of NIAID's Laboratory of Malaria Research, which is merging with the Laboratory of Parasitic Diseases. He is replacing Dr. Franklin A. Neva, who after 25 years as chief of LPD plans to focus on his own research projects in clinical parasitology and on his role as director of NIAID's Intramural Center for Tropical Disease Research ... **Dr. Harold C. Slavkin** has been named director of the National Institute of Dental Research. He was director of the Center for Craniofacial Molecular Biology at the University of Southern

California School of Dentistry. He assumed his new position in July. He replaced Dr. Harald Loe, who retired in June 1994 ... **Dr. Robert H. Stretch** has recently joined the Grants Associate Program, Office of Extramural Research. Following his release last September from active duty as an Army research psychologist for nearly 15 years, Stretch has been a research assistant professor of psychiatry at the Uniformed Services University of the Health Sciences. The major emphasis of his research has been on the etiology and epidemiology of post-traumatic stress disorder and other reactions to traumatic stress ... **Dr. Susan Streufert** was recently appointed director of the Division of Scientific Review, NICHD ... **Diane Shartsis Wax** was recently appointed NIH associate director for legislative policy and analysis, a position she has held in an acting capacity since July 1994. In this post, she provides leadership in all aspects of legislative activities for NIH, acts as a liaison between agency officials and members of Congress and develops strategies and poli-

Drs. J. E. Rall (c) and Jacob Robbins (r) were both honored with a special symposium entitled "Celebrating the Mentors: The Global Village of J.E. Rall and Jacob Robbins." They are shown here with Dr. Phillip Gorden, NIDDK director. The symposium was held on June 17 in connection with the Endocrine Society annual meeting, held this year in Washington, D.C. Rall began his 40-year NIH career as chief of the Clinical Endocrinology Branch. He later became NIDDK scientific director for 21 years and in 1983 was named NIH deputy director for intramural research, where he served for the next 8 years.



Robbins followed Rall as chief of CEB and led the scientific achievements of the branch for 28 years. Together, Rall, Robbins and collaborators performed fundamental studies of thyroid function and pioneered the use of radioactive iodine in the treatment of thyroid cancer. Both Rall and Robbins recently retired and are scientists emeritus at NIDDK. Rall and Robbins are holding charcoal portraits done by Al Laoang, NCRR, which were presented to them at the symposium.

cies to deal with Capitol Hill's everchanging environment ... **Dr. Janna Wehrle** recently joined the staff of NIGMS as a health scientist administrator in the Division of Cell Biology and Biophysics. Prior to joining NIH, she served as an associate professor in the department of radiology in the division of nuclear magnetic resonance research at Johns Hopkins University School of Medicine ... **Dr. Terrie Wetle**, a gerontologist who most recently was director of the Braceland Center for Mental Health and Aging in Connecticut, was named deputy director of the National Institute on Aging ... **Dr. Scott Whitecup**, NEI associate clinical director since October 1993, has recently been named clinical director. As NEI clinical director, he is responsible for the intramural clinical research program and has established a section to provide resources for the design and conduct of intramural clinical trials ... **Dr. Jack Yanovski**, an NICHD pediatric endocrinologist since 1989, has been named chief of 11 East, the Clinical Center's first multi-institute unit designed and staffed especially for children.

RETIREMENTS

J. Harrison Ager, NIDDK minority program specialist, retired after 42 years of government service, 38 with NIH. By training, he is a research scientist and came to NIH in 1956 to work in the Laboratory of Chemistry, but he gave up bench work in 1973 to become NIDDK's first EEO coordinator ... **Dr. Benjamin Burton**, NIDDK associate director for disease prevention and technology transfer, has been named NIH scientist emeritus after retiring. During his 34-year career, he helped develop protein supplements to fight malnutrition in developing countries, and helped develop new technology for kidney dialysis. His textbook, *Human Nutrition*, now in its 4th edition, has been translated into Spanish, Portuguese, and Arabic. At 75, he plans a fifth edition of his text and will continue his research ... **Dr. George J. Cosmides**, deputy chief of NLM's Specialized Information Services, has retired. He plans to continue to pursue scholarly interests and his passion for writing ... **Dr. Monique Dubois-Dalcq**, chief of NINDS' Laboratory of Viral and Molecular Pathogenesis, recently retired after 22 years in the NIH community. Upon leaving her NINDS post,

she became professor and chief of the unit on neurovirology and regeneration of the nervous system at the Pasteur Institute in Paris, France ... **Dr. Jerome G. Green** recently retired after 40 years at NIH. For the past 9 years, he was director of Division of Research Grants. Prior to becoming the DRG director, he spent 31 years with the National Heart, Lung, and Blood Institute, where he occupied several positions. His retirement plans include travel and time to study history and archeology ... **Dr. James C. Hill**, NIAID institute deputy director since 1987, has retired after 20 years at NIH. He looks forward to travel ... **Shirley Hopkins**, who worked in the Office of Human Resource Management in NIH's Division of Career Resources, fondly known as the "recruitment lady," has retired after 25 years of government service ... **Dr. Arthur Hoversland**, scientific review administrator of the human embryology and development study section, Referral and Review Branch, DRG, has retired after 17 years. In retirement, he will continue to live in the Frederick area and has plans to travel, including visits with his children in Indiana, Oregon, and Hawaii. ... **Dr. Morris Jones**, head of the Special Foreign Currency Program at the Fogarty International Center, and a champion of international scientific cooperation, retired after more than four decades of service to the U.S. government. The past 30 of these years were spent at FIC and its predecessor, the Office of International Relations, NIH ... **Richard J. Kagan**, health physicist with NIH's Office of Research Services, retired on June 30. One thing he will not miss is an hour and half commute from the Ferndale, Md. area (near Baltimore) that he has been doing since 1966. He is looking forward to traveling with his wife ... **Dr. Anthony R. Kalica** has retired from NIH after a 31-year career that spanned two institutes and many scientific interests. Most recently he served as senior scientific advisor in NHLBI's Division of Lung Diseases. He started his career at NIH and while working here earned his Ph.D. His plans after retirement include continuing his professional interests, spending more time with his family, and enjoying such hobbies as running, gardening and traveling ... **Dr. Melvin Ketchel** of the Referral and Review Branch, DRG, has retired after 13 years of federal service. Since 1981, he was scientific review administrator of a special study section that reviewed rehabilitation and vision Small

Business Innovation Research Applications. He plans to travel and spend time in the library on research projects ... **Dr. Zaven Khachaturian**, associate NIA director for neuroscience and neuropsychology and head of NIA's Office of Alzheimer's Disease Research, has retired after 18 years of government service. Once retired, he plans to remain active in the fight against Alzheimer's disease. He will be working with a former NIA colleague, NINR's Dr. Theresa Radebaugh, in a new consultancy called Khachaturian Radebaugh Associates, Inc., based in Potomac, Md. ... **Robert N. "Knick" Knickerbocker**, administrative officer for the NINDS Division of Intramural Research, has retired after 38 years of government service. His retirement plans include traveling, learning oil painting, sailing and golfing. He also will try to work part-time and volunteer ... **Dr. Keith L. Kraner**, scientific review administrator of the surgery, anesthesiology, and trauma study section, Referral and Review Branch, DRG, has retired after 28 years of active duty in the uniformed services. His future plans include writing a book, restoring a vintage car and farmhouse, and traveling ... **Dr. Charles Lowe**, associate director for special projects at NICHD, retired after 27 years of government service. Although he brought his expertise to a number of federal and private institutions through his career, he both began and ended his service with NICHD. In retirement, he will divide his time between Woods Hole and Cambridge, Mass., pursuing his many interests in public issues, as well as enjoying his hobbies ... **Constance A. Matthews**, a computer specialist for NCI's Research Analysis and Evaluation Branch, part of the Division of Extramural Activities, retired Apr. 14 after 31 years of service. For three decades, she analyzed and indexed NCI's scientific grants, tracked the published results through literature searches, maintained the office's GENIUS computer programs and flow charts, corrected computer malfunctions, and designed modifications to make the computer run smoother. Once retired, she is looking forward to spending more time with her children, her church and swimming ... **Dr. Donald Murphy**, director of the Office of Extramural Research's Extramural Staff Training Office, has retired after a 28-year NIH career ... **Marian Park**, an NINDS grants management officer, recently retired, ending a 35-year career of dedicated service to NIH ...

Dr. Richard J. Podolsky, a muscle biologist who served as chief of the Laboratory of Physical Biology at NIH for 20 years, has retired. He was appointed scientist emeritus upon his retirement and he will continue his research ... **Dr. Wilfred Rall**, senior research physicist, Mathematical Research Branch, NIDDK, has retired after 37 years of service with NIH and more than 40 years of research on the theoretical foundation of dendritic function in neurons. Rall will continue his research as scientist emeritus ... **Dr. Gerassimos Roussos**, a health scientist administrator at the National Institute of Dental Research, retired recently after 32 years of federal service. His government career included 21 years at NIH, 12 of which were with NIDR ... **John Small**, a public health advisor in NIDR's Disease Prevention and Health Promotion Branch, has retired after 47 1/2 years of federal service, almost 30 of them with the U.S. Public Health Service. Most of his PHS career focused on fluoride. He has all sorts of retirement plans including one project, already under way, to work with the planning board for an aviation technology museum in College Park. He will also have more time to devote to his family, his antique car, travel, and his hobbies, especially photography and dancing ... **Eileen Smith**, secretary in the Office of Policy for Extramural Research Administration, Grants Policy Office, OD, retired after 26 years of service. Her retirement plans including painting (oils and watercolors), travel, and family.

DEATHS

William Oliver Allen, 75, a retired grants management official, died May 27 at his home in Bethesda following a heart attack. After retiring from the Navy in 1960, he joined NIH where he worked until retiring in 1984 ... **Dr. Christian B. Anfinsen**, 79, died suddenly on May 14. He was professor of biophysical chemistry at the Johns Hopkins University, a position he had assumed after his retirement from NIH in 1981. In 1972, he shared with Stanford Moore and William H. Stein of Rockefeller University the Nobel Prize for Chemistry. He had been cited by the Swedish Royal Academy of Sciences for his "studies in ribonuclease, in particular the relationship between the amino acid sequence and the biologically active conformation." He had first come to NIH in 1950 from Harvard to

become chief of the Laboratory of Cellular Physiology in the heart institute. During the 1950's and 1960's, his work—part of the explosive growth of biomedical research and scientific accomplishments—was capped by his sharing of the Nobel prize. He influenced NIH on many other fronts: he help create the Foundation for Advanced Education in the Sciences, he supported international scientists, and he involved himself in political issues and human rights activism ... **Dr. A.L. Loomis Bell, Jr.**, 72, who developed new diagnostic methods during his 46 years as a heart and lung specialist at St. Luke's Hospital in New York, died from pulmonary fibrosis Apr. 25 at his home in Birdsboro, Pa. He was a postdoctoral fellow at the National Heart Institute in the USPHS in the early 1950's ... **Dr. Orvil E.A. Bolduan**, 78, who retired in 1984 as executive secretary of the visual sciences study section of NIH's research grants division, died of a heart ailment Apr. 7 at Suburban Hospital. Bolduan, who had a doctorate in physical chemistry from Stanford University, also worked for the National Eye Institute before becoming executive secretary of the visual sciences study section in 1973 ... **Dr. Robert W. Bowman**, 79, who retired in 1989 as chief of the Technical Development Laboratory at the National Heart, Lung and Blood Institute, died of pneumonia Feb. 27 at Suburban Hospital. A scientist at NIH since 1950, he became chief of the Laboratory of Technical Development in 1956. He developed the Aminco-Bowman spectrophotofluorometer. For that invention, he received the American Chemical Society award in chemical instrumentation and the meritorious service and the distinguished service awards of the Public Health Service ... **George Henry Brockelbank**, 91, a certified public accountant and lawyer who retired from the office of management survey and review at NIH in 1973, died May 27 at Montgomery General Hospital. He had joined NIH in the mid-1960's ... **Frederick S. Buschmeyer, Jr.**, 69, assistant chief of the Audiovisual Program Development Branch of the National Library of Medicine, died of cancer Apr. 11 at his home in Washington. He transferred to NIH in 1970 from the U.S. Information Agency where he had worked as a TV production chief and information officer ... **Dr. Jerry W. Carter, Jr.** who served as chief clinical psychologist at NIMH from 1948 to 1962 and then as program and personnel

scientist administrator until he retired in 1968, died Apr. 6 in Tallahassee, Fla. ... **Carolyn B. Casper**, 82, died of respiratory failure July 27 at George Washington Hospital. She lived in Washington. From 1960 to 1975 she was the director of NIH's Office of Management Policy. ... **Dr. John W. Diggs**, 59, former NIH deputy director for extramural research, died of colon cancer, at his home on May 15. During his 20-year NIH career he also held positions in NIAID and NINCDS. In 1993, after nearly 35 years of federal service, Diggs left NIH to become vice president for biomedical research at the Association of American Medical Colleges in Washington, D.C., where he was responsible for the development of research and administrative policy for the nation's medical schools and teaching hospitals ... **Celia Camine Dorn**, 91, a retired NIH employee who lived in the Washington area from 1932 to 1982, died of pneumonia Apr. 17 at a nursing home in Concord, Mass. She worked for NIH, where she did library services clerical work for about a decade, before retiring in 1966. Her husband, Dr. Harold Dorn, a longtime NCI scientist and statistician, died in 1963 ... **Dr. Charmian Elkes**, 75, a psychiatrist who conducted early drug studies, died of a heart attack Mar. 19 at Suburban Hospital. In 1957, she moved to the Washington area from England, where she joined the National Institute of Mental Health. In 1963, she joined the medical faculty at Johns Hopkins as an associate professor of psychiatry. Beginning at NIMH and later at Johns Hopkins, she played a major role in starting programs to train mental health counselors ... **Godfrey Frankel**, 82, a social worker who was a program director for the National Institute on Drug Abuse for 20 years, died of congestive heart failure July 11 at George Washington University Hospital. He had a lifelong interest in photography and after his retirement in 1982 began to exhibit his photographs of Washington scenes. He received critical acclaim and this fall, the Smithsonian Institution Press will publish a book of his photographs, "In The Alleys: Kids in the Shadow of the Capitol" ... **Dr. David M. Fried**, 86, who retired from NIH in 1974, died in February 1995 of a brain tumor in Majorca, Spain. He was chief of the Rehabilitation Department in the Clinical Center from 1953 to 1974 ... **Dr. George G. Glenner**, 67, died July 12 at his home in San Diego of complications from systemic

senile amyloidosis, a disease that he had researched. From 1968 to 1980, he worked at NIH as chief of the section of experimental pathology, NIDDK. After he left NIH, he was appointed attending physician and research pathologist at the Medical School of the University of California at San Diego. He continued his research into the molecular structure of the protein amyloid and its relation to Alzheimer's disease ...

Margaret Lillian Harris, 94, a registered nurse at NIH in the mid-1950's and 60's, died of cerebrovascular arteriosclerosis July 31 at Kensington Gardens Nursing and Rehabilitation Center. In the 1950's, she moved to Washington from Philadelphia and joined NIH's Institute of Arthritis and Metabolic Diseases ... **Dr. Clifton Keck Himmelsbach**, 88, a retired physician in the U.S. Public Health Service who was the founding director of the Addiction Research Center in Lexington, Ky., and later the associate director of the Clinical Center, died of respiratory failure Mar. 20 at Sibley Memorial Hospital. After a long career in the Public Health Service, he became in 1955 the associate director of the Clinical Center until he retired in 1965. Following his retirement he taught from 1965 to 1977 at Georgetown University Medical School where he was former associate dean and professor emeritus of pharmacology ...

John Jackson, 68, a laboratory technician who retired from NIH in 1992, died of cancer June 27 at his home in Mitchellville. He joined NIH in the early 1960's and worked there 29 years before retiring ... **Isabel Jennings**, institutional reference assistance, data management and control section, DRG, died at the end of January 1995 ... **Charles "Chuck" L. Knicley** died Feb. 1. He worked in the Laboratory of Cellular and Molecular Biology, Division of Cancer Etiology, National Cancer Institute, from December 1973 until he retired in June 1994 ... **Dr. Louisa Laue**, 37, an associate professor of pediatrics and endocrinology at Georgetown University Medical School, died of cystic fibrosis July 19 at Fairfax Hospital. From 1984 to 1990, she held fellowships in pediatrics and endocrinology at NIH ... **Dr. Nathene Turk Loveland**, 85, a clinical psychologist who practiced in the Washington area for 55 years, died June 13 at Walter Reed Riverside Hospital in Gloucester, Va. after a stroke. Early in her career, she worked at the National Institute of Mental Health ... **Doris E. McGuire**, 80, a former teacher who retired in 1980 after

15 years as a grant administrator with NIH, died of complications from bronchitis and emphysema Mar. 7 at a hospital in Boca Raton, Fla. She moved to Delray Beach, Fla. in 1980 ... **Dr. Ralph Meader**, 90, a medical research administrator and investigator, died May 5 at Franklin Regional Hospital in Franklin, N.H. In 1948, Meader became a research grants executive at the National Cancer Institute. He left in 1965 to become deputy director of research administration and executive secretary of the Committee on Research at Massachusetts General Hospital. He retired in 1976 ... **Dr. Alton Meister**, 72, a biochemist who was at NIH from 1945 to 1957, died on Apr. 6 at the Mediplex rehabilitation center in Stamford Ct., of complications from a stroke. He began his research career at NIH in 1945 and in 1957 left to become chairman of the department of biochemistry at Cornell ... **Dr. Meihan Nonoyam**, 57, cofounder and president of the Tampa Bay Research Institute in St. Petersburg, died Mar. 24 of cancer at his home. His research in molecular biology and viral oncology was supported by grants from NIH. He also served on various NIH and NCI boards. He was especially known for his original studies of the Epstein-Barr virus ... **John James Norton**, 80, a retired NIH employee, died in his Rockville home on Mar. 2. He worked at NIH in planning and control in the Division of Research Services before retiring in 1974 ... **Marie O'Neil**, 64, died July 19 of cancer at her home in Bethesda. A secretary in the Laboratory of Molecular Biology, NIDDK, for the past 14 years, she received outstanding performance awards in 1991 and 1995 and the special act service award in 1993 ... **Edith Pruden**, 50, personnel management specialist in the Office of Human Resources Management, Office of the Director, died at Washington Hospital Center. She had been employed at NIH since 1967. She was responsible for managing many of the career development programs such as Career Curricula, STRIDE, and the Training and Development Services Program ... **Dr. Lewis "Lew" Joseph Sargent**, 85, a scientist who retired from NIH in 1973, died on Apr. 27. Sargent began to work at NIH in the early 1940's on the synthesis of new antimalarial drugs. After the war, he returned to research on the structure of alkaloids, including morphine derivatives. He was appointed assistant chief of the Laboratory of Chemistry in 1956 ... **Dr.**

Robert Thaddeus Scanlon, 68, a pediatric allergist and clinical professor at Georgetown University Medical School, died of lymphoma Feb. 23 at Georgetown University Hospital. After finishing Georgetown University Medical School in 1954, he studied allergy and immunology at NIH ... **Dr. Matthew Suffness**, 52, an NCI cancer therapy researcher, died of pneumonia June 14 at Holy Cross Hospital. In November, he had received a bone marrow transplant. He came to NCI in 1976 as head of the plant and animal products section. In 1981, he became chief of the Natural Products Branch and in 1989 became natural products grants program coordinator. He was involved in the development of taxol and was the editor of and contributed to the 1995 text "Taxol—Science and Applications" ... **Rose Tortorella**, 77, a medical librarian at NIH from 1956 to 1968, died of cancer May 9 at a nursing home in Boynton Beach, Fla. ... **Rolf Versteeg**, 59, a retired NIH program analyst, died May 1 at Holy Cross Hospital after a heart attack. After he retired from the Air Force in 1961, he joined NIH and retired as a program analyst in 1992 ... **Hania M. Warfield**, 89, a former scientific translator for NIH, died Mar. 16 at Rockville Nursing Home of complications related to a stroke suffered in 1990. She was a scientific translator at NIH from 1949 until 1954 and again in the late 1950's and early 1960's ... **Elsie Irene Weide**, 84, a secretary who retired in 1974 from NIMH after 10 years of service, died of pneumonia July 30 at a hospital in Hendersonville, N.C. ... **Dr. Harold M. Weintraub**, 49, died Mar. 28 of brain cancer. He was a professor of genetics at the University of Washington and a molecular biologist whose work advanced understanding of cell development by providing the experimental framework for defining how embryonic cells develop into specialized cell types. He received from NCI an outstanding investigator grant in 1986 ... **Margaret Mackin Williams**, 81, a retired administrative assistant at NIH, died of cancer May 26 at her home in Silver Spring. She worked for NIMH from 1961 until she retired in 1978 ... **Wright Williamson**, 61, a clinical social worker and scientific review administrator who had worked at NIMH for 15 years, died of heart ailments on May 8 at Shady Grove Adventist Hospital. He also maintained a private practice and worked as a legislative fellow with the staff of the Senate Committee on Labor and Human Resources.

NIH Retrospectives



Summer 1955

By a departmental order dated June 8, 1955, DHEW Secretary Oveta Culp Hobby created a new organization at NIH—the Division of Biologics Standards. Established to reflect the expanded NIH program in biologics control, the Division replaces the former National Microbiological Institute's Laboratory of Biologics Control. The new program has divisional status (comparable organizationally to an institute) and thus will be responsible to the NIH director. Dr. Carl L. Larson, director of the NMI Rocky Mountain Laboratory, in Hamilton, Mont., has been named chief of the Division and will be responsible for planning and organizing the new program.



Summer 1965

Dr. Helen M. Dyer of the Nutrition and Carcinogenesis Section in NCI's Laboratory of Biochemistry, retired May 31. She came to NCI as a research fellow, recruited by Dr. Carl Voegtlin, the first NCI director. Her research focused on the metabolism of the carcinogen fluorenylacetamide and chemically related compounds in ani-

mals (see photo below) ... According to a recent survey, the typical Federal career employee retiring in 1964 after age 60 with at least 30 years service was male, married, 65 years old, and entitled to an annuity of \$402 a month based on an average of about 38 years of Federal service.



Summer 1975

President Gerald R. Ford and HEW Secretary Caspar W. Weinberger participated in ceremonies held at NIH on July 1 to administer the oath of office to Dr. Theodore Cooper, the new HEW assistant secretary for health, and Dr. Donald S. Fredrickson, the new NIH director. At the ceremony, President Ford noted that in "honoring the two men who are taking office today, we are paying a long-deserved tribute to NIH because both of them are products

of this institution which is testimony to its greatness as a training ground for leaders in health and in medicine" ... On Aug. 1, Dr. Dorland J. Davis retired as NIAID director, a position he had held since 1964. His retirement completed a 36-year PHS career marked by scientific achievements and administrative innovations.



Summer 1985

The Howard Hughes Medical Institute and the National Institutes of Health have chosen 25 medical students who will participate in the first year of the HHMI-NIH Research Scholars Program ... American and Japanese scientists met July 18 and 19 to celebrate 20 years of international biomedical cooperation begun with the U.S.-Japan Cooperative Medical Science Program.



On May 26, 1995, Dr. Helen M. Dyer celebrated her 100th birthday. She is shown here in a photo taken by Dr. Mairin Brennan, senior editor at *Chemical & Engineering News*. Dyer who received the 1962 Garvan Medal for her pioneering research in biochemistry, is still active, reports Brennan. Dyer "... reads C&EN, follows the DNA evidence being presented at the O.J. Simpson trial, and is learning all about e-mail." Photo courtesy of *Chemical & Engineering News*.



**NIH HISTORICAL OFFICE
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SELECTED REFERENCES ON NIH HISTORY

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For a copy of the NIH Historical Office's annotated bibliography of selected NIH history references, write to Dr. Victoria A. Harden, NIH historian, at Bldg. 31, Room 2B09, NIH, Bethesda, MD 20892-2092; (301) 496-6610. The bibliography is also available to be downloaded from the NIH Information Center computer bulletin board. To access it, set you communications parameters for: 8 databits, 1 stop bit, and no parity; terminal emulation to ANSI; highest speed supported is 14,400 bps. The local number in Bethesda, MD, is (301) 480-5144. If you live outside the local calling area, dial 1-(800) NIH-BBS1 (644-2271).



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